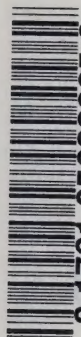


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Results of the Canadian Air
and Precipitation

Monitoring Network APN: 1982

by

L.A. Barrie, H.A. Wiebe, K. Anlauf

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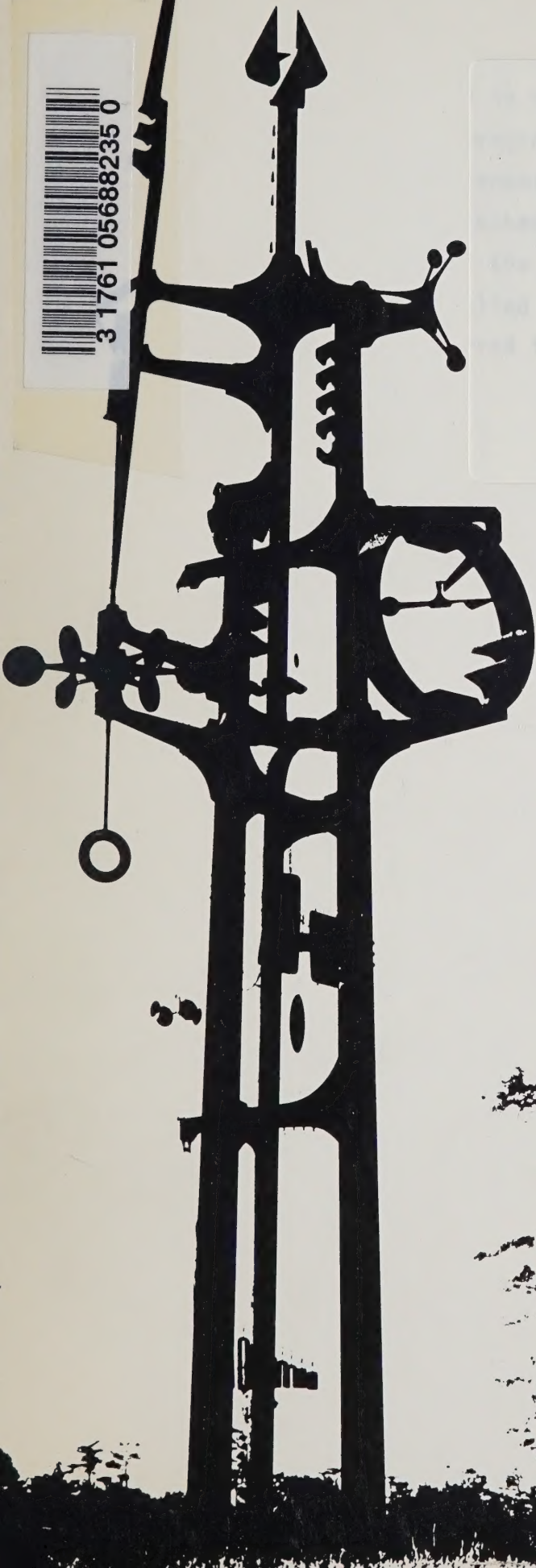


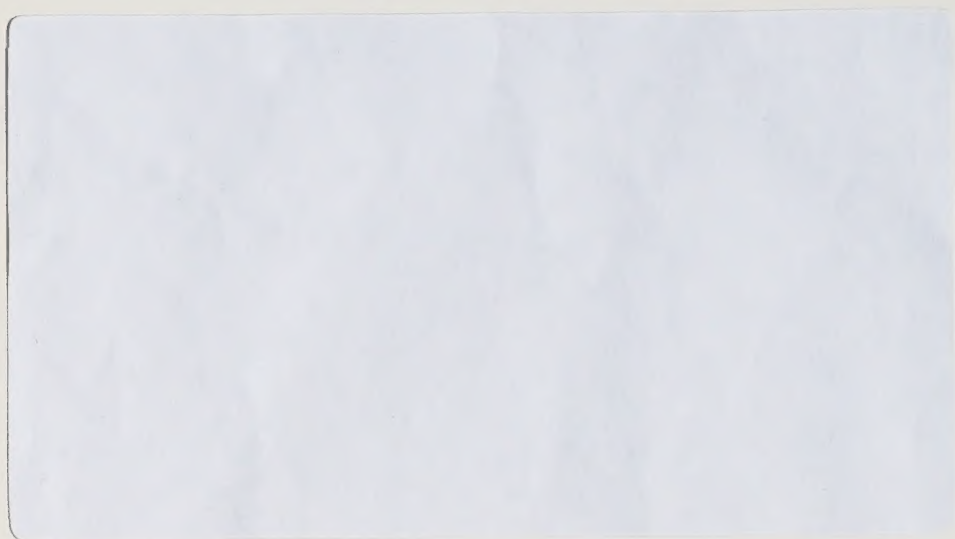
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Date Completed: January 1984

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INTRODUCTION

The air and precipitation monitoring network (APN), in operation since November 1978, has been used to obtain information on the quality of air and precipitation on a daily basis at regionally representative locations in Canada (Figure 1). Several APN sites (ELA-Kenora, Algoma, Montmorency Forest, and Kejimikujik) are situated in designated 'calibrated watersheds' of the federal acid rain research program to provide information on atmospheric inputs of acid-related substances, as well as information on the origin of pollutants reaching the watershed. Covering the period January to December 1982, this report represents the results from eight sites which are still in operation today. For a detailed description of network operations and results, the reader is referred to three previous reports by Barrie et al (1980, 1981 and 1982).

STATUS OF THE NETWORK

Operational periods for sampling of air and precipitation at each site are summarized in Table 1. Of all the stations ELA-Kenora and Chalk River have been in operation the longest (since November 1978). Air sampling was terminated at Long Point on 30 November 1982 in favor of a new site at Longwoods Conservation area near London, Ontario. Earlier in 1982, two new sites were added to the network:

- (1) Baie D'Espoir on the south coast of Newfoundland
- (2) Cree Lake in the centre of Northern Saskatchewan

Site coordinates and site operating authorities are summarized in Table 2. The Newfoundland site provides information on air and precipitation quality at a location in the downwind plume of eastern North American pollutant emissions. The Cree Lake site is strategically located in an acid-sensitive region downwind of the Athabasca Oil Sands region. It will provide valuable baseline information prior to the expected developments of these oil deposits in Northern Alberta.

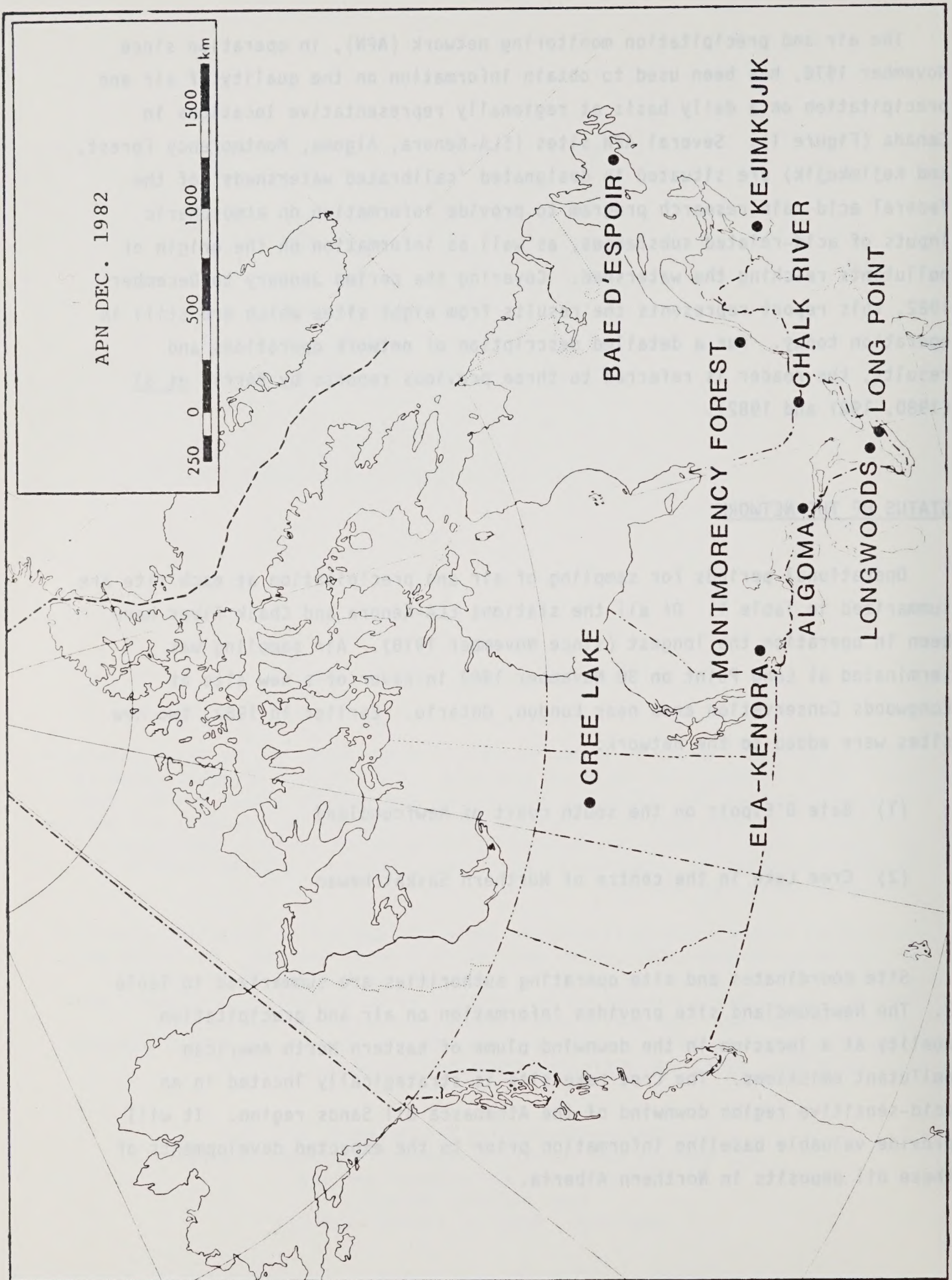
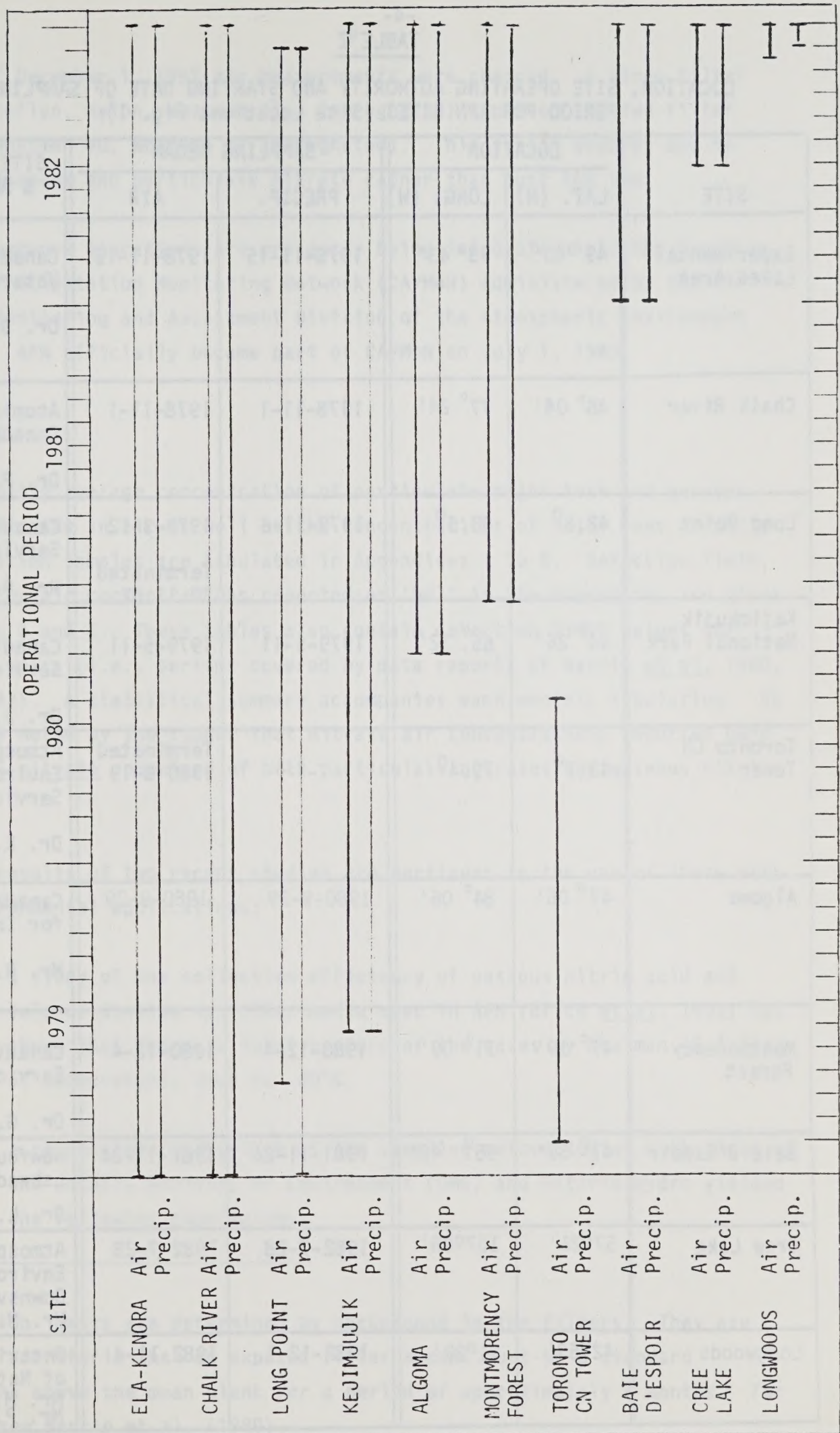


FIGURE 1: Location of APN monitoring sites

TABLE 1: OPERATIONAL RECORD FOR SAMPLING AT APN SITES



-4-
TABLE 2

LOCATION, SITE OPERATING AUTHORITY AND STARTING DATE OF SAMPLING
PERIOD FOR APN SITES (Site Locations Fig. 1)

SITE	LOCATION		SAMPLING BEGAN		SITE OPERATION & AUTHORITY
	LAT. (N)	LONG. (W)	PRECIP.	AIR	
Experimental Lakes Area	49° 40'	93° 43'	1978-11-15	1978-11-15	Canadian Fresh Water Institute Dr. D. Schindler
Chalk River	46° 04'	77° 24'	1978-11-1	1978-11-1	Atomic Energy of Canada Ltd. Dr. P. Barry
Long Point	42.6°	80.5°	1978-11-6	1979-3-12 Terminated 30.11.82	Canadian Wildlife Service Mr. P. Madore
Kejimikujik National Park	44° 26'	65° 12'	1979-5-11	1979-5-11	Canadian Wildlife Service Dr. J. Kerekes
Toronto CN Tower	43.7°	79.4°	-	Terminated 1980-8-19	Atmospheric Environment Service Dr. K. Anlauf
Algoma	47° 06'	84° 06'	1980-9-29	1980-9-29	Canada Centre for Inland Waters Mr. R. Semkin
Montmorency Forest	47° 19'	71° 09'	1980-12-4	1980-12-4	Canadian Forestry Service Dr. G. Robitaille
Baie D'Espoir	47° 59'	55° 48'	1981-11-24	1981-11-24	Newfoundland and Labrador Hydro Dr. L. Hulett
Cree Lake	57° 21'	107° 08'	1982-7-28	1982-7-28	Atmospheric Environment Service Downsview, Ont. Mr. M. Still
Longwoods	42° 53'	81° 29'	1982-12-1	1982-11-4	Ontario Ministry of Natural Resources Mr. M. Still Mr. P.W. Chan

As of December 1, 1982 air measurements were changed. A three-filter system (teflon, nylon, Whatman 41 - impregnated) replaced the two filter system (Whatman 40, Whatman 41 impregnated). This system enables one to measure gaseous and particulate nitrate rather than just the sum.

The network operations are presently being integrated into the Canadian Air and Precipitation Monitoring Network (CAPMoN) administered by the Air Quality Monitoring and Assessment Division of the Atmospheric Environment Service. APN officially became part of CAPMoN on July 1, 1983.

RESULTS

The daily average concentration of particulate major ions and gaseous sulphur dioxide in air as well as the concentrations of major ions in daily precipitation samples are tabulated in Appendices 1 to 8. Detection limit values¹ for air concentrations reported as 'bd1' in the Appendices are given in Tables 3 and 4. These tables also contain detection limit values for previous years (i.e., periods covered by data reports of Barrie et al, 1980, 1981, 1982). A statistical summary accompanies each monthly tabulation. It should be noted by the reader that nitrate air concentrations reported here are total nitrate comprised of both particulate nitrates and gaseous nitric acid.

The results of two recent studies are pertinent to the use of these data for environmental applications:

1. a study of the collection efficiency of gaseous nitric acid and sulphur dioxide by filter media used in APN (Brice et al, 1982) has shown that there is total capture of the gases by Whatman 40 filters at temperatures down to -20°C.
2. a recent intercomparison of APN sampling methodologies with those of the Ontario Ministry of Environment (OME) and Ontario Hydro yielded the following conclusions:

¹ Detection limits are determined by background in the filters. They are based on a criteria that an exposed filter amount must be 3 standard deviations above the mean blank for a period of approximately 6 months. For details see Barrie et al, (1980).

TABLE 3: Detection limit values for air concentrations reported as 'bdl' between November 1978 and December 1982 at Chalk River, ELA-Kenora and Long Point.

STATION: CHALK RIVER

PERIOD	DETECTION LIMIT ($\mu\text{g m}^{-3}$)					
	$\text{SO}_4^{=}$	NO_3^-	CL^-	Na^+	NH_4^+	SO_2
NOVEMBER 1978-JUNE 1979	0.268	0.333	0.426	0.179	0.535	0.417
JULY 1979-DECEMBER 1979	0.348	0.553	0.405	0.231	0.569	0.742
JANUARY 1980-JUNE 1980	0.300	0.211	0.178	0.318	0.278	0.689
JULY 1980-DECEMBER 1980	0.212	0.286	0.307	0.083	0.374	0.638
JANUARY 1981-JUNE 1981	0.949	0.280	0.165	0.059	0.394	0.822
JULY 1981-DECEMBER 1981	0.187	0.139	0.107	0.060	0.218	0.933
JANUARY 1982-JUNE 1982	0.265	0.226	0.093	0.049	0.270	1.498
JULY 1982-NOVEMBER 1982	0.166	0.173	0.088	0.158	0.178	0.258

STATION: ELA-KENORA

PERIOD	DETECTION LIMIT ($\mu\text{g m}^{-3}$)					
	$\text{SO}_4^{=}$	NO_3^-	CL^-	Na^+	NH_4^+	SO_2
NOVEMBER 1978-JUNE 1979	0.217	0.190	0.312	0.175	0.496	0.614
JULY 1979-DECEMBER 1979	0.093	0.078	0.317	0.170	0.545	0.389
JANUARY 1980-JUNE 1980	0.248	0.266	0.256	0.156	0.811	0.720
JULY 1980-DECEMBER 1980	0.195	0.086	0.231	0.098	0.403	0.471
JANUARY 1981-JUNE 1981	0.185	0.063	0.300	0.109	0.644	0.709
JULY 1981-DECEMBER 1981	0.263	0.158	0.125	0.094	0.403	1.225
JANUARY 1982-JUNE 1982	0.477	0.121	0.118	0.071	0.281	1.244
JULY 1982-NOVEMBER 1982	0.156	0.068	0.132	0.055	0.241	0.854

STATION: LONG POINT

PERIOD	DETECTION LIMIT ($\mu\text{g m}^{-3}$)					
	$\text{SO}_4^{=}$	NO_3^-	CL^-	Na^+	NH_4^+	SO_2
MARCH 1979-JUNE 1979	0.342	0.586	0.235	0.406	0.631	1.083
JULY 1979-DECEMBER 1979	0.521	0.786	0.386	0.341	0.986	1.463
JANUARY 1980-JUNE 1980	0.329	0.931	0.274	0.318	0.763	1.697
JULY 1980-DECEMBER 1980	0.434	0.671	0.188	0.076	0.725	0.821
JANUARY 1981-JUNE 1981	0.422	0.820	0.234	0.165	0.459	0.599
JULY 1981-DECEMBER 1981	0.397	0.666	0.278	0.111	0.632	1.033
JANUARY 1982-JUNE 1982	0.133	0.498	0.090	0.085	0.239	1.913
JULY 1982-NOVEMBER 1982	0.180	0.304	0.096	0.182	0.234	1.625

TABLE 4: Detection limit values for air concentrations reported as 'bdl' between November 1978 and December 1982 at Kejimikujik, Montmorency, Algoma, Baie D'Espoir and Cree Lake.

STATION: KEJIMIKUJIK

PERIOD	DETECTION LIMIT ($\mu\text{g m}^{-3}$)					
	$\text{SO}_4^{=}$	NO_3^-	CL^-	Na^+	NH_4^+	SO_2
MAY 1979-JUNE 1979	0.207	0.128	0.326	0.174	0.383	0.391
JULY 1979-DECEMBER 1979	0.117	0.163	0.247	0.151	0.421	0.197
JANUARY 1980-JUNE 1980	0.156	0.129	0.217	0.056	0.243	0.633
JULY 1980-DECEMBER 1980	0.447	0.095	0.683	0.062	0.296	0.884
JANUARY 1981-JUNE 1981	0.914	0.160	0.382	0.136	0.338	0.392
JULY 1981-DECEMBER 1981	0.281	0.121	0.145	0.123	0.498	0.914
JANUARY 1982-JUNE 1982	0.319	0.065	0.130	0.172	0.212	0.446
JULY 1982-NOVEMBER 1982	0.336	0.206	0.131	0.088	0.284	0.475

STATION: MONTMORENCY FOREST

PERIOD	DETECTION LIMIT ($\mu\text{g m}^{-3}$)					
	$\text{SO}_4^{=}$	NO_3^-	CL^-	Na^+	NH_4^+	SO_2
DECEMBER 1980-JUNE 1981	0.517	0.261	0.199	0.077	0.365	0.322
JULY 1981-DECEMBER 1981	0.348	0.176	0.161	0.150	0.340	0.463
JANUARY 1982-JUNE 1982	0.740	0.202	0.098	0.057	0.325	0.515
JULY 1982-NOVEMBER 1982	0.178	0.254	0.115	0.119	0.253	0.650

STATION: ALGOMA

PERIOD	DETECTION LIMIT ($\mu\text{g m}^{-3}$)					
	$\text{SO}_4^{=}$	NO_3^-	CL^-	Na^+	NH_4^+	SO_2
SEPTEMBER 1980-DECEMBER 1980	0.093	0.103	0.162	0.025	0.196	0.276
JANUARY 1981-JUNE 1981	0.336	0.273	0.120	0.109	0.413	0.444
JULY 1981-DECEMBER 1981	0.300	0.149	0.222	0.083	0.282	0.585
JANUARY 1982-JUNE 1982	0.340	0.167	0.139	0.077	0.216	0.304
JULY 1982-NOVEMBER 1982	0.409	0.313	0.115	0.105	0.254	0.527

STATION: BAIE D'ESPOIR

PERIOD	DETECTION LIMIT ($\mu\text{g m}^{-3}$)					
	$\text{SO}_4^{=}$	NO_3^-	CL^-	Na^+	NH_4^+	SO_2
JANUARY 1982-JUNE 1982	0.463	0.049	0.113	0.086	0.324	0.965
JULY 1982-NOVEMBER 1982	0.432	0.088	0.300	0.499	0.152	0.890

STATION: CREE LAKE

PERIOD	DETECTION LIMIT ($\mu\text{g m}^{-3}$)					
	$\text{SO}_4^{=}$	NO_3^-	CL^-	Na^+	NH_4^+	SO_2
JULY 1982-NOVEMBER 1982	0.264	0.030	0.263	0.110	0.209	0.393

- i) there is good agreement between particulate sulphate and gaseous sulphur dioxide measurements made by AES and OME.
- ii) in general, AES total nitrate air concentrations measured using Whatman 40 cellulose filter are 20-30% lower than those of OME measured using a combination teflon-nylon filter.
- iii) there is good agreement between measurements of the concentration of major ions in precipitation by all three agencies.

There has been an analysis of APN data recently published (Barrie et al, 1983) that discusses the origin of air and precipitation pollutants at APN sites as well as the wet and dry deposition of sulphates at ELA-Kenora, Chalk River, Long Point and Kejimikujik.

ERRATA

The atmospheric concentration of SO_2 at Chalk River on July 15, 1980, was 6.56 rather than the reported value of 'bd1' (Barrie et al, 1981).

SUMMARY

Measurement of the concentrations of acid-related substances in air and precipitation on a routine basis is continuing in an expanded network of eight stations covering most areas in Canada impacted by acidic pollutants. The observations provide valuable information for calculations on the rate of deposition of pollutants to watersheds and for comparison with acid-rain model predictions. This report presents data collected in 1982. A detailed analysis and interpretation of the data will be undertaken and reported separately.

ACKNOWLEDGEMENTS

We are indebted to: Mr. J. Kovalick and Mr. W. Sukloff for their valuable assistance in processing the data, Mr. A. Gaudenzi and S. Iqbal for coordinating the network's routine operations and installation of new sites and to all those site operators that ensure that high quality samples are collected routinely. These include Mr. Jerry Wells, Newfoundland and Labrador Hydro; Mr. Floyd Luxton; Dr. Gilles Robitaille and staff, Canadiann Forestry Research Centre; Mr. D.P. Wildsmith, Atomic Energy of Canada Ltd.; Mr. Ray Semkin and Mr. Barney Barnet, C.C.I.W.; Mr. Ken Beatty, Dept. of Fisheries and Oceans; Mr. and Mrs. Doug Brown, Canadian Wildlife Service.

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MONTHLY SUMMARIES OF MEASURED CONCENTRATIONS IN AIR AND PRECIPITATION AT ELA KENORA

ELA-KENORA

JANUARY 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO_4^{2-}	NO_3^-	Cl^-	Na^+	NH_4^+	
1	bd1	bd1	0.18	0.10	bd1	5.7
2	0.79	0.30	bd1	bd1	0.57	3.1
3	bd1	bd1	0.19	0.10	bd1	1.9
4	bd1	0.29	0.23	bd1	bd1	0.0
5	1.11	0.42	0.15	0.10	bd1	9.3
6	2.57	0.56	bd1	bd1	bd1	8.5
7	2.24	1.02	bd1	bd1	0.54	7.4
8	1.57	0.34	0.18	0.12	bd1	2.6
9	1.44	0.38	0.21	0.10	bd1	2.9
10	1.09	0.62	bd1	bd1	0.34	5.7
11	0.82	0.34	bd1	bd1	bd1	1.9
12	bd1	bd1	bd1	bd1	bd1	bd1
13	bd1	0.24	bd1	bd1	bd1	bd1
14	1.17	0.77	bd1	bd1	bd1	3.5
15	bd1	bd1	1.15	0.35	bd1	2.2
16	bd1	bd1	0.41	0.12	bd1	bd1
17	0.67	0.71	0.30	0.15	bd1	1.7
18	0.59	0.66	bd1	bd1	bd1	2.8
19	1.15	0.55	0.15	0.11	bd1	5.0
20	0.71	0.35	0.13	0.09	bd1	4.8
21	1.01	0.43	bd1	0.11	bd1	1.5
22	0.90	0.24	bd1	bd1	bd1	1.9
23	0.77	bd1	bd1	bd1	bd1	2.3
24	bd1	bd1	bd1	bd1	bd1	3.3
25	bd1	0.25	bd1	bd1	bd1	1.6
26	1.34	1.44	bd1	bd1	0.45	7.4
27	2.31	2.04	bd1	bd1	0.79	8.6
28	1.09	0.53	0.15	0.14	0.46	3.6
29	1.24	0.50	0.14	0.11	0.38	3.6
30	1.21	0.32	bd1	0.09	bd1	5.4
31	bd1	0.29	bd1	bd1	bd1	3.3

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	-	-	31
A. MEAN	0.83	0.44	-	-	-	3.6
S.D.	0.73	0.44	-	-	-	2.6
MIN.	bd1	bd1	-	-	-	bd1
MAX.	2.57	2.04	-	-	-	9.3

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO_4^{2-}	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	ION BAL.	
	STD (mm)	COLL (mm)											RATIO +VE/-VE	PRECIP TYPE
1	4.4	1.6	6.30	0.6	-	BDL	0.29	-	0.06	0.22	0.05	0.004	-	2
2	6.1	2.6	5.70	0.8	1.240	BDL	0.22	0.012	0.04	0.16	0.05	0.006	-	2
5	4.7	2.9	5.90	0.8	1.493	BDL	0.37	0.003	0.06	0.24	0.13	0.009	-	2
10	BDL	0.5	-	1.2	-	0.4	-	-	-	-	-	-	-	2
14	1.8	1.1	6.50	1.7	-	1.2	-	-	-	-	-	-	-	2
18	3.4	2.9	5.20	BDL	1.116	0.2	0.20	0.005	0.04	0.15	0.08	0.002	-	2
22	9.8	1.1	5.80	0.7	-	0.3	-	-	-	-	-	-	-	2
26	1.5	0.8	-	1.7	-	0.4	-	-	-	-	-	-	-	2
28	1.2	1.6	6.20	0.6	-	0.6	0.69	-	0.13	0.53	0.06	-	-	2
29	0.7	0.7	-	4.0	-	3.5	-	-	-	-	-	-	-	2
TOTAL PRECIP	33.6	15.8												
NO. OBS.	10	10	7	10	-	10	-	-	-	-	-	-	-	
A. MEAN	3.4	1.6	5.74	1.2	-	0.6	-	-	-	-	-	-	-	
STD. DEV.	3.0	0.9	5.68	1.1	-	1.1	-	-	-	-	-	-	-	
MINIMUM	BDL	0.5	5.20	BDL	-	BDL	-	-	-	-	-	-	-	
MAXIMUM	9.8	2.9	6.50	4.0	-	3.5	-	-	-	-	-	-	-	
P.W. MEAN			5.73	0.8	-	0.3	-	-	-	-	-	-	-	

PRECIP TYPE

1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN

- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

ELA-KENORA

FEBRUARY 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO ₄ ⁻²	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	1.56	1.09	bd1	bd1	bd1	5.5
2	1.05	0.25	bd1	bd1	bd1	7.4
3	1.73	0.65	bd1	bd1	bd1	5.3
4	2.22	0.68	bd1	0.11	bd1	6.2
5	1.89	1.35	bd1	0.10	0.38	5.1
6	1.43	1.03	bd1	bd1	bd1	6.9
7	1.21	0.42	1.14	0.43	bd1	1.7
8	bd1	0.34	0.46	0.20	bd1	bd1
9	0.82	0.62	0.14	0.09	bd1	2.6
10	0.86	0.93	bd1	bd1	bd1	5.2
11	0.78	0.34	bd1	bd1	bd1	2.6
12	0.70	1.66	bd1	bd1	0.41	2.4
13	1.25	0.99	bd1	bd1	bd1	2.1
14	4.47	3.69	0.15	bd1	1.65	8.0
15	bd1	0.29	bd1	bd1	bd1	2.6
16	1.59	0.40	0.15	bd1	0.46	4.7
17	3.23	1.24	bd1	bd1	0.96	8.9
18	3.12	0.96	bd1	bd1	0.91	1.6
19	1.26	0.89	bd1	bd1	0.43	bd1
20	1.16	0.20	bd1	bd1	0.32	1.3
21	2.14	0.64	bd1	bd1	0.57	3.2
22	0.66	bd1	bd1	bd1	bd1	2.0
23	bd1	0.18	bd1	bd1	bd1	bd1
24	bd1	bd1	bd1	bd1	bd1	bd1
25	0.92	0.86	bd1	-	0.55	1.9
26	0.68	0.38	bd1	bd1	0.39	2.1
27	0.75	0.25	bd1	bd1	0.28	3.2
28	2.24	2.71	bd1	bd1	1.40	5.4

bd1 - BELOW DETECTION LIMIT

NO. OBS.	28	28	-	-	28	28
A. MEAN	1.35	0.82	-	-	0.31	3.5
S.D.	1.04	0.80	-	-	0.45	2.5
MIN.	bd1	bd1	-	-	bd1	bd1
MAX.	4.47	3.69	-	-	1.65	8.9

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO4=	NO3-	Cl-	Ca++	NH4+	Mg++	Na+	K+	TOT P	ION BAL.	PRECIP
	STD (mm)	COLL (mm)											RATIO +VE/-VE	TYPE
14	1.0	0.3	-	7.1	-	5.5	-	-	-	-	-	-	-	2
16	7.2	5.4	4.40	1.5	0.926	0.2	0.08	0.249	0.01	0.16	0.09	0.008	1.28	2
17	3.0	2.9	4.10	7.0	5.095	0.3	-	2.077	-	-	-	-	-	4
25	0.5	0.7	-	4.5	-	0.4	-	-	-	-	-	-	-	2
28	6.5	3.3	4.70	3.2	4.607	0.1	0.20	0.886	0.03	0.15	0.07	0.008	0.62	2
TOTAL PRECIP	18.2	12.6												
NO. OBS.	5	5	3	5	3	5	-	3	-	-	-	-	-	
A. MEAN	3.6	2.5	4.33	4.7	3.543	1.3	-	1.071	-	-	-	-	-	
STD. DEV.	3.1	2.1	4.52	2.4	2.279	2.3	-	0.928	-	-	-	-	-	
MINIMUM	0.5	0.3	4.10	1.5	0.926	0.1	-	0.249	-	-	-	-	-	
MAXIMUM	7.2	5.4	4.70	7.1	5.095	5.5	-	2.077	-	-	-	-	-	
P.W. MEAN			4.41	3.4	3.108	0.5	-	0.825	-	-	-	-	-	

PRECIP TYPE

1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN

- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

ELA-KENORA

MARCH 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO_4^{2-}	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2
1	bd1	bd1	bd1	bd1	bd1	bd1
2	2.45	0.15	0.13	bd1	0.51	5.2
3	2.06	0.34	bd1	bd1	0.48	5.5
4	1.41	0.53	bd1	bd1	0.53	4.8
5	1.65	0.76	bd1	bd1	0.65	4.9
6	2.94	0.38	0.30	0.12	0.66	4.9
7	2.46	0.45	0.21	0.12	0.48	5.9
8	bd1	0.39	bd1	bd1	bd1	bd1
9	2.56	1.84	bd1	0.08	0.83	7.1
10	2.51	2.46	0.14	bd1	1.25	3.3
11	1.56	0.86	bd1	bd1	0.57	4.2
12	2.70	1.36	bd1	bd1	1.09	2.9
13	2.15	bd1	bd1	bd1	0.57	2.7
14	1.10	0.47	bd1	bd1	0.55	2.2
15	3.28	0.49	bd1	0.20	0.39	10.8
16	1.69	0.31	bd1	0.08	bd1	bd1
17	1.92	0.28	bd1	0.12	bd1	1.6
18	1.90	0.25	bd1	0.14	bd1	bd1
19	1.04	0.31	0.17	0.12	bd1	bd1
20	0.52	0.13	bd1	bd1	bd1	bd1
21	1.62	0.20	bd1	bd1	bd1	1.7
22	2.81	0.39	bd1	bd1	0.59	bd1
23	bd1	bd1	bd1	bd1	bd1	3.5
24	bd1	bd1	bd1	0.08	bd1	bd1
25	1.10	0.15	bd1	0.15	bd1	1.5
26	1.27	0.16	bd1	0.10	bd1	1.6
27	1.62	0.99	bd1	bd1	0.44	3.7
28	2.51	2.45	bd1	bd1	1.34	bd1
29	6.64	5.00	bd1	0.08	2.42	12.7
30	3.00	1.05	bd1	bd1	1.00	2.9
31	2.15	0.14	bd1	0.09	bd1	2.6

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	-	31	31
A. MEAN	1.89	0.72	-	-	0.46	3.1
S.D.	1.28	1.03	-	-	0.55	3.1
MIN.	bd1	bd1	-	-	bd1	bd1
MAX.	6.64	5.00	-	-	2.42	12.7

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO_4^{2-}	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	ION BAL. RATIO PRECIP	
	STD (mm)	COLL (mm)											+VE/-VE	TYPE
4 (2)	0.8	0.7	-	2.3	-	0.9	-	-	-	-	-	-	-	2
10	2.0	1.8	4.90	1.3	1.856	0.2	-	0.119	-	-	-	-	-	2
12	17.8	8.8	4.90	1.9	1.373	0.4	0.28	0.592	0.04	0.26	0.15	0.006	1.08	2
16	4.2	2.3	4.50	3.3	2.259	0.6	-	0.182	-	-	-	-	-	2
17	2.5	1.1	4.20	5.2	-	1.7	-	-	-	-	-	-	-	2
23	4.5	3.3	4.30	1.6	1.373	0.1	0.20	0.264	0.02	0.09	0.04	-	1.39	2
24	BDL	0.8	-	3.4	-	5.3	-	-	-	-	-	-	-	2
30	11.6	9.4	4.50	1.7	1.462	0.1	0.33	0.467	0.03	0.10	0.08	0.007	1.34	4
TOTAL PRECIP	42.6	27.5												
NO. OBS.	7	7	6	7	5	7	-	5	-	-	-	-	-	
A. MEAN	6.1	3.9	4.47	2.6	1.665	1.2	-	0.325	-	-	-	-	-	
STD. DEV.	6.3	3.6	4.70	1.4	0.388	1.9	-	0.199	-	-	-	-	-	
MINIMUM	BDL	0.8	4.20	1.3	1.373	0.1	-	0.119	-	-	-	-	-	
MAXIMUM	17.8	9.4	4.90	5.2	2.259	5.3	-	0.592	-	-	-	-	-	
P.W. MEAN			4.58	2.1	1.516	0.4	-	0.452	-	-	-	-	-	

PRECIP TYPE

1 - RAIN

- - MISSING DATA

2 - SNOW

BDL - BELOW DETECTION LIMIT

3 - MIXED

4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

ELA-KENORA

APRIL 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	SO ₂
1	0.72	0.15	bd1	bd1	bd1	bd1
2	1.57	0.22	bd1	bd1	bd1	bd1
3	1.90	bd1	bd1	0.08	bd1	bd1
4	1.89	0.14	bd1	0.08	bd1	2.4
5	2.22	0.23	bd1	0.10	0.39	2.0
6	1.28	bd1	bd1	bd1	bd1	1.7
7	1.77	0.34	bd1	bd1	0.62	1.4
8	2.41	1.50	bd1	bd1	1.29	bd1
9	2.91	1.07	bd1	bd1	1.41	bd1
10	1.76	bd1	bd1	bd1	0.34	bd1
11	2.10	0.60	bd1	bd1	0.69	1.9
12	1.68	1.01	bd1	bd1	1.00	bd1
13	1.26	0.22	bd1	bd1	0.41	bd1
14	0.93	0.63	bd1	bd1	0.45	bd1
15	1.93	1.52	bd1	bd1	0.87	2.6
16	-	-	-	-	-	-
17	-	-	-	-	-	-
18	-	-	-	-	-	-
19	-	-	-	-	-	-
20	-	-	-	-	-	-
21	1.32	0.27	bd1	bd1	0.55	bd1
22	0.86	0.45	bd1	bd1	0.50	bd1
23	0.89	0.72	bd1	bd1	0.65	bd1
24	0.94	0.56	bd1	bd1	0.45	1.2
25	1.42	0.11	bd1	bd1	bd1	bd1
26	1.54	0.52	bd1	bd1	0.49	bd1
27	1.67	0.64	bd1	bd1	0.57	bd1
28	2.07	1.57	bd1	bd1	0.83	bd1
29	2.72	2.76	bd1	-	-	2.7
30	0.66	0.46	bd1	bd1	0.41	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	25	25	-	-	24	-
A. MEAN	1.62	0.63	-	-	0.50	-
S.D.	0.60	0.65	-	-	0.40	-
MIN.	0.66	bd1	-	-	bd1	-
MAX.	2.91	2.76	-	-	1.41	-

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)											+VE/-VE		
2	14.9	6.4	4.30	3.7	2.614	0.1	0.60	0.983	0.05	0.10	0.08	0.006	1.18		4
9	3.6	2.9	4.70	1.2	1.063	0.1	0.14	0.404	0.02	0.20	0.02	-	1.32		4
15	11.2	11.4	5.40	2.5	1.462	0.1	0.20	1.072	0.03	0.08	0.08	0.007	1.02		1
16	0.9	1.1	-	0.8	-	BDL	-	-	-	-	-	-	-		4
29	1.0	1.3	6.50	6.5	-	0.9	-	-	-	-	-	-	-		1
TOTAL PRECIP	31.6	23.1													
NO. OBS.	5	5	4	5	3	5	3	3	3	3	3	2	3		
A. MEAN	6.3	4.6	4.73	2.9	1.713	0.3	0.31	0.820	0.03	0.13	0.06	0.006	1.17		
STD. DEV.	6.4	4.3	4.64	2.3	0.805	0.4	0.25	0.363	0.02	0.06	0.03	0.001	0.15		
MINIMUM	0.9	1.1	4.30	0.8	1.063	BDL	0.14	0.404	0.02	0.08	0.02	0.006	1.02		
MAXIMUM	14.9	11.4	6.50	6.5	2.614	0.9	0.60	1.072	0.05	0.20	0.08	0.007	1.32		
P.W. MEAN			4.55	3.0	1.992	0.1	0.39	0.946	0.04	0.10	0.07	0.006			

PRECIP TYPE

1 - RAIN
2 - SNOW
3 - MIXED
4 - UNCERTAIN

- - MISSING DATA
BDL - BELOW DETECTION LIMIT

ELA-KENORA

MAY 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	0.53	0.45	bd1	bd1	0.40	bd1
2	1.17	0.81	bd1	bd1	0.75	bd1
3	1.64	0.60	bd1	0.08	0.66	bd1
4	6.38	1.46	bd1	0.09	2.72	1.9
5	1.38	0.36	bd1	0.18	bd1	bd1
6	bd1	0.29	bd1	0.07	bd1	bd1
7	1.10	bd1	bd1	0.07	bd1	bd1
8	0.68	bd1	bd1	bd1	bd1	bd1
9	1.70	0.40	bd1	0.12	0.58	1.4
10	2.31	0.33	bd1	bd1	0.74	1.8
11	0.76	0.15	bd1	0.08	0.31	2.0
12	0.58	0.16	bd1	bd1	0.28	2.5
13	1.99	0.24	bd1	bd1	0.30	1.3
14	1.45	0.15	bd1	bd1	bd1	bd1
15	1.40	0.13	bd1	0.08	bd1	1.9
16	2.07	bd1	bd1	bd1	bd1	bd1
17	2.61	0.30	bd1	bd1	0.62	bd1
18	bd1	bd1	bd1	bd1	bd1	1.8
19	bd1	bd1	bd1	bd1	bd1	bd1
20	0.66	0.13	bd1	bd1	bd1	bd1
21	0.73	0.20	bd1	bd1	0.33	bd1
22	0.81	0.17	bd1	bd1	0.26	8.8
23	1.38	0.24	bd1	bd1	0.41	4.3
24	2.67	0.73	bd1	bd1	0.69	4.1
25	4.18	1.36	0.18	0.22	1.02	2.0
26	4.08	0.62	bd1	bd1	0.95	bd1
27	5.91	0.65	bd1	0.08	1.13	2.4
28	7.19	0.55	bd1	bd1	1.21	1.9
29	4.30	0.60	bd1	bd1	0.95	bd1
30	0.49	0.38	bd1	bd1	bd1	bd1
31	bd1	0.43	bd1	bd1	bd1	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	-	31	-
A. MEAN	1.94	0.38	-	-	0.46	-
S.D.	1.92	0.36	-	-	0.57	-
MIN.	bd1	bd1	-	-	bd1	-
MAX.	7.19	1.46	-	-	2.72	-

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO PRECIP	
	STD (mm)	COLL (mm)											+VE/-VE	TYPE
3	1.2	1.3	6.40	4.7	-	0.4	-	-	-	-	-	-	-	1
4	9.2	9.1	5.70	2.1	1.639	0.2	0.30	1.357	0.05	0.08	0.06	0.007	1.30	1
7	BDL	1.0	-	5.0	0.089	0.7	-	BDL	-	-	-	-	-	1
9	2.0	2.3	6.00	4.0	3.898	0.6	1.08	1.000	0.15	0.79	0.22	-	0.96	1
10	3.0	2.9	5.50	1.9	1.949	BDL	0.93	0.666	0.14	0.24	0.15	-	-	1
12	1.0	1.3	-	-	-	-	-	-	-	-	-	-	-	1
14	5.0	4.9	5.50	1.8	-	0.3	-	-	-	-	-	-	-	1
15	1.8	2.3	4.00	2.8	2.645	0.2	0.93	0.706	BDL	0.13	0.13	0.022	-	1
16	6.6	6.8	3.90	3.4	-	0.3	3.26	-	0.09	0.42	0.22	0.011	-	1
17	13.5	13.0	4.30	0.9	1.045	0.3	0.10	0.214	BDL	0.07	0.02	0.003	-	1
18	6.6	6.2	4.60	0.5	0.323	0.4	BDL	0.014	BDL	0.08	0.03	0.002	-	1
29	3.2	3.6	4.40	0.4	1.409	0.1	0.31	0.609	0.04	0.05	0.33	0.041	3.16	1
30	13.5	13.7	4.50	2.5	0.505	0.4	0.16	0.052	0.01	0.04	0.06	0.008	0.66	1
31	9.4	9.4	4.80	1.1	0.266	0.1	0.37	0.077	0.01	0.09	0.10	0.010	1.44	1
TOTAL PRECIP	76.0	77.8												
NO. OBS.	14	14	12	13	10	13	10	10	10	10	10	8	-	
A. MEAN	5.4	5.6	4.48	2.4	1.377	0.3	0.74	0.469	0.05	0.20	0.13	0.013	-	
STD. DEV.	4.5	4.3	4.39	1.5	1.213	0.2	0.96	0.472	0.06	0.24	0.10	0.013	-	
MINIMUM	BDL	1.0	3.90	0.4	0.089	BDL	BDL	BDL	BDL	0.04	0.02	0.002	-	
MAXIMUM	13.5	13.7	6.40	5.0	3.898	0.7	3.26	1.357	0.15	0.79	0.33	0.041	-	
P.W. MEAN			4.46	1.8	1.022	0.3	0.57	0.388	0.03	0.13	0.09	0.009		

PRECIP TYPE

1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN

- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

ELA-KENORA

JUNE 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO ₄ ⁻	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	SO ₂
1	bd1	0.15	bd1	bd1	bd1	3.6
2	bd1	0.16	bd1	bd1	bd1	bd1
3	1.19	0.63	bd1	bd1	0.43	3.2
4	1.74	1.03	bd1	bd1	0.73	bd1
5	2.56	1.95	bd1	bd1	bd1	4.1
6	6.16	1.11	bd1	bd1	1.96	1.9
7	bd1	0.24	bd1	bd1	bd1	1.8
8	bd1	bd1	bd1	bd1	bd1	1.1
9	bd1	bd1	bd1	bd1	bd1	bd1
10	0.45	0.13	bd1	bd1	bd1	bd1
11	0.64	bd1	bd1	bd1	bd1	1.5
12	0.48	bd1	bd1	bd1	bd1	1.5
13	0.55	0.13	bd1	bd1	bd1	1.3
14	bd1	bd1	bd1	bd1	bd1	bd1
15	bd1	bd1	bd1	bd1	bd1	1.3
16	bd1	bd1	bd1	bd1	bd1	bd1
17	bd1	bd1	bd1	bd1	bd1	bd1
18	bd1	bd1	bd1	bd1	bd1	bd1
19	bd1	bd1	bd1	bd1	bd1	bd1
20	bd1	bd1	bd1	bd1	bd1	1.5
21	bd1	bd1	bd1	bd1	bd1	bd1
22	bd1	bd1	bd1	bd1	bd1	1.8
23	0.81	0.42	bd1	bd1	0.39	bd1
24	bd1	bd1	bd1	bd1	bd1	bd1
25	bd1	bd1	bd1	bd1	bd1	bd1
26	0.49	0.51	bd1	bd1	bd1	1.2
27	bd1	bd1	bd1	bd1	bd1	bd1
28	bd1	0.12	bd1	bd1	bd1	2.2
29	bd1	bd1	bd1	bd1	bd1	bd1
30	bd1	bd1	bd1	bd1	bd1	1.2

bd1 - BELOW DETECTION LIMIT

NO. OBS.	-	-	-	-	-	30
A. MEAN	-	-	-	-	-	1.0
S.D.	-	-	-	-	-	1.2
MIN.	-	-	-	-	-	bd1
MAX.	-	-	-	-	-	4.1

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL.	
	STD (mm)	COLL (mm)											RATIO +VE/-VE	PRECIP TYPE
1	2.6	2.3	5.10	0.9	BDL	0.2	0.76	BDL	0.04	0.17	0.10	0.019	-	1
6	15.2	14.3	4.30	3.8	1.785	0.2	1.57	0.578	0.08	0.11	0.10	0.006	1.53	1
8	1.0	1.3	5.80	1.4	-	0.3	0.81	-	0.06	-	-	-	-	1
9	19.0	18.2	4.60	0.6	0.797	BDL	0.10	0.219	BDL	0.07	0.02	0.002	-	1
10	1.0	1.3	5.10	1.8	-	0.2	1.47	-	0.15	-	-	-	-	1
13	4.8	4.9	4.60	1.7	1.152	BDL	0.60	0.281	0.06	0.06	0.04	0.003	-	1
16	3.4	3.6	4.60	1.2	1.329	0.1	1.28	0.192	0.13	0.08	0.06	0.012	2.32	1
20	2.8	2.6	5.00	0.3	0.133	BDL	0.14	0.008	0.02	0.08	0.07	0.009	-	1
23	1.0	1.3	4.80	2.2	-	0.6	1.28	-	0.13	-	-	-	-	1
TOTAL PRECIP	50.8	49.8												
NO. OBS.	9	9	9	9	6	9	9	6	9	6	6	6	-	
A. MEAN	5.6	5.5	4.73	1.5	0.866	0.2	0.89	0.213	0.07	0.10	0.06	0.008	-	
STD. DEV.	6.7	6.3	4.83	1.0	0.698	0.2	0.55	0.212	0.05	0.04	0.03	0.006	-	
MINIMUM	1.0	1.3	4.30	0.3	BDL	BDL	0.10	BDL	BDL	0.06	0.02	0.002	-	
MAXIMUM	19.0	18.2	5.80	3.8	1.785	0.6	1.57	0.578	0.15	0.17	0.10	0.019	-	
P.W. MEAN			4.52	1.8	1.102	0.1	0.77	0.313	0.05	0.09	0.06	0.005		

PRECIP TYPE

1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN

- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

ELA-KENORA

JULY 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	0.38	0.21	bd1	0.07	0.24	1.8
2	1.97	0.81	bd1	0.07	0.80	1.5
3	1.67	0.13	bd1	bd1	bd1	6.1
4	0.20	bd1	bd1	bd1	bd1	3.8
5	0.91	0.41	bd1	bd1	bd1	2.4
6	0.41	0.35	bd1	bd1	bd1	3.2
7	0.49	0.12	bd1	bd1	bd1	bd1
8	0.32	0.20	bd1	bd1	bd1	1.5
9	0.28	0.15	bd1	bd1	bd1	bd1
10	0.33	0.15	bd1	bd1	bd1	bd1
11	0.16	bd1	bd1	bd1	bd1	2.5
12	0.57	0.36	bd1	bd1	bd1	bd1
13	0.30	0.17	bd1	bd1	bd1	2.2
14	0.63	0.24	bd1	bd1	bd1	1.5
15	2.86	0.36	bd1	bd1	0.70	1.8
16	2.66	0.46	bd1	bd1	0.73	bd1
17	0.20	0.10	bd1	bd1	bd1	bd1
18	0.17	bd1	bd1	bd1	bd1	bd1
19	0.40	0.35	bd1	bd1	bd1	8.2
20	0.47	0.37	bd1	bd1	bd1	1.2
21	0.20	0.09	bd1	bd1	bd1	bd1
22	bd1	0.14	bd1	bd1	bd1	bd1
23	1.39	0.48	bd1	0.06	0.42	1.8
24	0.73	0.47	bd1	bd1	0.28	bd1
25	bd1	bd1	bd1	bd1	bd1	bd1
26	0.86	0.21	bd1	bd1	0.30	bd1
27	0.36	0.12	bd1	bd1	bd1	3.7
28	0.54	0.16	bd1	bd1	bd1	1.1
29	0.55	0.55	bd1	bd1	bd1	1.2
30	0.68	0.50	bd1	bd1	0.37	bd1
31	0.69	1.94	bd1	bd1	bd1	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	-	-	31
A. MEAN	0.69	0.31	-	-	-	1.5
S.D.	0.71	0.36	-	-	-	1.9
MIN.	bd1	bd1	-	-	-	bd1
MAX.	2.86	1.94	-	-	-	8.2

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)											+VE/-VE		
2	71.0	73.9	4.70	1.5	0.975	0.3	0.17	0.373	0.02	0.04	BDL	0.002	-		1
3	4.6	4.6	4.90	1.4	0.842	0.3	0.21	0.419	0.04	0.04	0.07	0.013	1.03		1
4	7.4	6.5	4.80	1.2	1.905	0.4	0.27	0.533	0.03	0.13	0.09	0.008	1.03		1
5	9.1	8.8	5.70	1.3	1.595	0.3	0.48	0.587	0.05	0.18	0.09	0.023	1.14		1
11	2.2	2.6	4.70	1.0	0.133	0.3	0.47	BDL	0.06	0.13	0.04	0.022	-		1
12	7.5	8.8	5.30	0.5	0.310	0.1	0.13	0.037	0.01	0.02	0.03	0.006	0.83		1
15	2.8	2.8	5.30	2.3	3.190	0.3	0.82	0.774	0.16	0.10	0.28	0.048	1.04		1
16	21.6	22.8	5.20	1.0	0.930	0.2	0.13	0.388	0.01	0.05	0.06	0.009	0.92		1
20	1.0	1.3	4.70	1.6	1.816	0.4	-	0.528	-	-	-	-	-		1
23	19.2	19.9	5.10	0.8	0.930	0.1	0.11	0.270	0.01	0.03	0.04	0.005	0.90		1
28	2.2	2.6	5.10	0.6	0.620	0.1	0.22	0.053	0.03	0.18	BDL	0.012	-		1
29	2.6	2.6	5.10	0.4	BDL	BDL	0.09	BDL	BDL	0.03	0.04	0.019	-		1

TOTAL PRECIP 151.2 157.2

NO. OBS.	12	12	12	12	12	12	11	12	11	11	11	11	-	
A. MEAN	12.6	13.1	4.96	1.1	1.104	0.2	0.28	0.330	0.04	0.08	0.07	0.015	-	
STD. DEV.	19.6	20.4	5.19	0.5	0.900	0.1	0.22	0.259	0.04	0.06	0.08	0.013	-	
MINIMUM	1.0	1.3	4.70	0.4	BDL	BDL	0.09	BDL	BDL	0.02	BDL	0.002	-	
MAXIMUM	71.0	73.9	5.70	2.3	3.190	0.4	0.82	0.774	0.16	0.18	0.28	0.048	-	
P.W. MEAN			4.87	1.2	1.021	0.2	0.20	0.359	0.02	0.06	0.03	0.007		

PRECIP TYPE

1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN

- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

ELA-KENORA

AUGUST 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO ₄ ⁺	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	SO ₂
1	bd1	1.29	bd1	bd1	bd1	2.1
2	0.87	0.45	bd1	bd1	bd1	3.1
3	2.33	0.88	bd1	bd1	0.68	3.7
4	1.04	0.24	bd1	bd1	0.39	1.3
5	0.34	0.18	bd1	bd1	bd1	1.4
6	0.52	0.26	bd1	bd1	bd1	1.6
7	0.27	0.25	bd1	bd1	bd1	1.9
8	bd1	bd1	bd1	bd1	bd1	bd1
9	bd1	0.20	bd1	bd1	bd1	bd1
10	bd1	bd1	bd1	bd1	bd1	bd1
11	bd1	bd1	bd1	bd1	bd1	bd1
12	1.92	1.58	bd1	bd1	0.88	bd1
13	2.96	1.20	bd1	bd1	1.17	5.0
14	4.37	0.76	bd1	bd1	1.60	1.6
15	bd1	bd1	bd1	bd1	bd1	bd1
16	bd1	0.21	bd1	bd1	bd1	6.3
17	bd1	bd1	bd1	bd1	bd1	6.8
18	1.58	0.34	bd1	0.15	0.51	bd1
19	0.77	0.13	bd1	bd1	bd1	4.7
20	0.99	bd1	bd1	bd1	bd1	2.1
21	0.84	0.41	bd1	bd1	bd1	bd1
22	bd1	bd1	bd1	bd1	bd1	7.2
23	bd1	0.08	bd1	bd1	bd1	bd1
24	0.23	bd1	bd1	bd1	bd1	1.8
25	bd1	bd1	bd1	bd1	bd1	bd1
26	0.44	bd1	bd1	bd1	bd1	1.6
27	0.17	bd1	bd1	bd1	bd1	bd1
28	0.33	0.19	bd1	bd1	bd1	2.4
29	bd1	bd1	bd1	bd1	bd1	bd1
30	0.98	0.09	bd1	bd1	0.25	4.0
31	1.42	0.66	bd1	bd1	0.66	3.0

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	-	-	31
A. MEAN	0.72	0.30	-	-	-	2.0
S.D.	1.02	0.42	-	-	-	2.2
MIN.	bd1	bd1	-	-	-	bd1
MAX.	4.37	1.58	-	-	-	7.2

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO4=	NO3-	Cl-	Ca++	NH4+	Mg++	Na+	K+	TOT P	ION BAL.	
	STD (mm)	COLL (mm)											RATIO +VE/-VE	PRECIP TYPE
1	4.8	5.2	5.30	1.2	0.975	0.1	0.36	0.330	0.05	0.05	0.09	0.019	1.12	1
2	8.4	8.1	6.30	1.5	1.772	0.1	0.44	0.909	0.08	0.10	0.07	0.028	1.17	1
7	6.2	6.8	5.50	0.5	0.443	0.1	0.13	0.120	0.03	0.05	0.05	0.007	1.01	1
12	5.8	6.5	5.40	1.0	0.443	0.1	0.19	BDL	0.04	0.04	BDL	0.007	-	1
14	0.8	0.7	-	1.7	-	0.2	0.45	-	0.11	-	-	-	-	1
18	4.4	4.6	5.40	2.0	1.506	0.1	0.15	0.679	0.03	BDL	0.04	0.009	-	1
20	1.8	2.0	4.80	1.3	0.310	0.1	0.22	0.150	0.05	-	-	-	-	1
21	5.3	4.9	4.70	1.6	1.373	0.1	0.39	0.338	0.08	0.02	0.03	0.010	1.15	1
22	2.8	2.3	4.90	BDL	0.266	BDL	0.09	0.055	0.02	0.02	0.05	0.009	-	1
24	3.8	4.2	5.70	BDL	0.399	BDL	0.11	0.223	0.03	BDL	0.05	0.006	-	1
28	4.4	4.9	5.30	1.1	1.063	0.1	0.20	0.475	0.04	BDL	0.07	0.004	-	1
30	0.8	1.0	-	1.3	-	0.9	0.47	-	0.10	-	-	-	-	1
31	14.3	16.3	5.40	0.4	0.665	0.1	0.09	0.384	0.02	BDL	0.03	0.005	-	1
TOTAL PRECIP	63.6	67.5												
NO. OBS.	13	13	11	13	11	13	13	11	13	10	10	10	-	
A. MEAN	4.9	5.2	5.16	1.0	0.838	0.1	0.25	0.333	0.05	0.03	0.05	0.011	-	
STD. DEV.	3.6	4.0	5.20	0.6	0.531	0.2	0.15	0.274	0.03	0.03	0.03	0.008	-	
MINIMUM	0.8	0.7	4.70	BDL	0.266	BDL	0.09	BDL	0.02	BDL	BDL	0.004	-	
MAXIMUM	14.3	16.3	6.30	2.0	1.772	0.9	0.47	0.909	0.11	0.10	0.09	0.028	-	
P.W. MEAN			5.26	0.9	0.900	0.1	0.22	0.381	0.04	0.03	0.05	0.011	-	

PRECIP TYPE

1 - RAIN

- - MISSING DATA

2 - SNOW

BDL - BELOW DETECTION LIMIT

3 - MIXED

4 - UNCERTAIN

ELA-KENORA

SEPTEMBER 1982

AIR CONCENTRATIONS (10^{-6} g m^{-3})

DAY	PARTICULATE					GAS
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	0.47	0.22	bd1	bd1	bd1	1.2
2	0.42	bd1	bd1	bd1	bd1	bd1
3	0.30	0.15	bd1	bd1	bd1	bd1
4	0.20	0.21	bd1	bd1	0.25	4.4
5	bd1	bd1	bd1	bd1	bd1	bd1
6	bd1	0.10	bd1	bd1	bd1	bd1
7	2.53	0.73	bd1	bd1	1.16	2.2
8	10.27	1.20	bd1	bd1	3.63	bd1
9	9.01	1.45	bd1	bd1	5.30	1.2
10	11.04	1.07	bd1	bd1	3.63	bd1
11	2.60	0.76	bd1	bd1	1.06	bd1
12	bd1	bd1	bd1	bd1	bd1	2.2
13	0.36	0.12	bd1	bd1	bd1	2.4
14	1.20	0.51	bd1	bd1	0.51	bd1
15	0.99	0.52	bd1	bd1	0.51	bd1
16	0.51	0.23	bd1	bd1	0.41	bd1
17	bd1	bd1	bd1	bd1	bd1	bd1
18	0.33	0.19	bd1	bd1	bd1	bd1
19	bd1	bd1	bd1	bd1	bd1	bd1
20	bd1	0.17	bd1	bd1	bd1	bd1
21	0.32	bd1	bd1	bd1	bd1	1.0
22	0.22	0.08	bd1	bd1	bd1	bd1
23	0.90	0.33	bd1	bd1	0.40	bd1
24	0.83	bd1	bd1	bd1	bd1	bd1
25	0.54	0.21	bd1	bd1	0.24	1.5
26	bd1	bd1	bd1	bd1	bd1	bd1
27	bd1	0.09	bd1	bd1	bd1	0.9
28	8.08	0.74	bd1	bd1	2.64	1.9
29	0.83	0.27	bd1	bd1	0.26	bd1
30	0.93	0.07	bd1	bd1	0.26	0.8

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	30	-	-	-	-
A. MEAN	1.76	0.31	-	-	-	-
S.D.	3.22	0.39	-	-	-	-
MIN.	bd1	bd1	-	-	-	-
MAX.	11.04	1.45	-	-	-	-

PRECIPITATION CONCENTRATIONS (10^{-3} g l^{-1})

DAY	AMOUNT		PH	SO4=	NO3-	Cl-	Ca++	NH4+	Mg++	Na+	K+	TOT P	ION BAL.	PRECIP
	STD (mm)	COLL (mm)											RATIO +VE/-VE	TYPE
1	1.0	1.0	-	1.8	-	0.9	-	-	-	-	-	-	-	1
6	1.0	1.3	5.20	0.6	-	0.4	-	-	-	-	-	-	-	1
12	7.4	7.2	5.10	0.9	0.709	0.2	0.16	0.286	0.03	0.13	0.06	0.006	1.14	1
17	0.4	0.7	-	5.8	-	1.7	-	-	-	-	-	-	-	1
18	0.4	0.1	-	-	-	-	-	-	-	-	-	-	-	1
22	-	7.8	6.00	1.5	1.373	0.3	0.36	0.676	0.07	0.16	0.07	0.011	1.07	1
23	20.2	20.5	5.70	0.7	0.310	0.2	0.07	0.213	0.01	0.03	0.02	0.002	0.69	1
27	37.8	36.8	5.10	0.9	0.354	0.1	0.06	0.191	0.01	BDL	BDL	0.040	-	1
28	6.4	5.9	6.10	9.0	3.588	0.3	3.04	2.090	0.34	0.16	0.20	0.063	1.18	1
TOTAL PRECIP	74.6	81.3												
NO. OBS.	8	9	6	8	5	8	5	5	5	5	5	5	-	
A. MEAN	9.3	9.0	5.36	2.6	1.267	0.5	0.74	0.691	0.09	0.10	0.07	0.025	-	
STD. DEV.	13.3	12.2	5.46	3.1	1.366	0.5	1.29	0.806	0.14	0.08	0.08	0.026	-	
MINIMUM	0.4	0.1	5.10	0.6	0.310	0.1	0.06	0.191	0.01	BDL	BDL	0.002	-	
MAXIMUM	37.8	36.8	6.10	9.0	3.588	1.7	3.04	2.090	0.34	0.16	0.20	0.063	-	
P.W. MEAN			5.25	1.6	0.666	0.2	0.34	0.376	0.04	0.04	0.03	0.028		

PRECIP TYPE

1 - RAIN

- - MISSING DATA

2 - SNOW

BDL - BELOW DETECTION LIMIT

3 - MIXED

4 - UNCERTAIN

ELA-KENORA

OCTOBER 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO ₄ ⁻	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	0.39	bd1	bd1	bd1	bd1	bd1
2	0.67	0.26	bd1	bd1	bd1	bd1
3	bd1	bd1	bd1	bd1	bd1	1.0
4	0.98	0.52	bd1	bd1	0.37	1.5
5	bd1	bd1	bd1	bd1	bd1	1.4
6	bd1	bd1	bd1	bd1	bd1	bd1
7	0.64	bd1	bd1	bd1	bd1	2.6
8	0.47	0.11	bd1	bd1	bd1	bd1
9	0.95	bd1	bd1	bd1	bd1	bd1
10	bd1	bd1	bd1	bd1	bd1	bd1
11	0.18	bd1	bd1	bd1	bd1	2.0
12	1.22	bd1	bd1	bd1	bd1	3.1
13	1.29	0.30	bd1	bd1	0.50	bd1
14	0.24	bd1	bd1	bd1	bd1	bd1
15	0.37	bd1	bd1	bd1	bd1	bd1
16	0.32	bd1	bd1	bd1	bd1	4.9
17	bd1	bd1	bd1	bd1	bd1	bd1
18	bd1	bd1	bd1	bd1	bd1	1.4
19	-	-	-	-	-	-
20	1.00	bd1	bd1	bd1	bd1	bd1
21	1.28	0.89	bd1	bd1	0.66	bd1
22	1.42	1.47	bd1	bd1	0.77	bd1
23	2.59	3.67	bd1	bd1	1.62	1.9
24	bd1	bd1	bd1	bd1	bd1	bd1
25	2.83	1.66	0.15	bd1	1.23	1.9
26	5.90	2.46	0.24	0.20	2.31	6.5
27	6.53	2.43	0.22	0.13	2.76	12.0
28	5.85	2.61	0.35	0.19	2.61	3.7
29	0.94	0.72	bd1	bd1	0.47	bd1
30	0.45	0.42	bd1	bd1	0.23	1.0
31	bd1	0.06	bd1	bd1	bd1	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	-	-	-	-	-
A. MEAN	1.22	-	-	-	-	-
S.D.	1.80	-	-	-	-	-
MIN.	bd1	-	-	-	-	-
MAX.	6.53	-	-	-	-	-

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO4=	NO3-	Cl-	Ca++	NH4+	Mg++	Na+	K+	TOT P	ION BAL.	PRECIP
	STD (mm)	COLL (mm)											+VE/-VE	TYPE
1	13.5	13.0	5.10	0.5	0.177	0.1	0.06	BDL	BDL	0.06	BDL	0.004	-	1
2	3.5	2.6	5.20	1.2	0.886	0.3	0.33	0.382	0.04	0.12	0.09	0.024	1.16	1
3	3.6	3.7	6.10	2.3	2.171	0.3	0.13	1.401	0.02	0.17	0.09	-	0.97	1
6	30.1	28.7	4.80	1.3	0.487	0.2	0.07	0.217	BDL	0.06	BDL	0.004	-	1
9	14.6	12.7	4.90	0.8	0.354	0.2	BDL	0.080	BDL	0.06	0.03	0.003	-	1
10	8.0	6.8	4.40	1.9	1.196	0.2	0.10	0.179	BDL	0.07	0.02	0.005	-	4
11	1.8	1.6	4.60	2.0	-	0.4	0.19	-	0.02	0.25	0.12	-	-	1
26	1.0	1.3	3.90	6.4	-	0.6	-	-	-	-	-	-	-	1
27	1.2	1.0	4.50	5.3	-	0.3	-	-	-	-	-	-	-	1
28	1.1	1.3	-	5.4	-	0.2	-	-	-	-	-	-	-	1
29	4.1	3.6	5.60	1.4	1.254	0.1	0.18	0.697	0.05	0.11	0.10	0.013	1.10	2
TOTAL PRECIP	82.5	76.3												
NO. OBS.	11	11	10	11	7	11	8	7	8	8	8	6	-	
A. MEAN	7.5	6.9	4.57	2.6	0.932	0.3	0.13	0.422	0.02	0.11	0.06	0.009	-	
STD. DEV.	8.9	8.4	4.43	2.1	0.685	0.1	0.10	0.488	0.02	0.07	0.05	0.008	-	
MINIMUM	1.0	1.0	3.90	0.5	0.177	0.1	BDL	BDL	BDL	0.06	BDL	0.003	-	
MAXIMUM	30.1	28.7	6.10	6.4	2.171	0.6	0.33	1.401	0.05	0.25	0.12	0.024	-	
P.W. MEAN			4.79	1.4	0.618	0.2	0.08	0.237	0.01	0.08	0.02	0.005		

PRECIP TYPE

1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN

- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

ELA-KENORA

NOVEMBER 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO_4^{2-}	NO_3^-	Cl^-	Na^+	NH_4^+	
1	0.94	2.59	bd1	0.07	0.88	1.2
2	0.50	0.12	bd1	bd1	bd1	1.1
3	0.20	bd1	bd1	bd1	bd1	bd1
4	bd1	bd1	bd1	bd1	bd1	bd1
5	bd1	bd1	bd1	bd1	bd1	bd1
6	1.16	1.37	bd1	bd1	0.74	0.9
7	bd1	bd1	bd1	bd1	bd1	bd1
8	0.53	0.10	bd1	bd1	bd1	bd1
9	0.65	0.11	bd1	bd1	bd1	0.9
10	0.80	bd1	bd1	bd1	bd1	bd1
11	1.24	0.40	bd1	bd1	0.42	bd1
12	0.41	bd1	bd1	bd1	bd1	bd1
13	0.22	0.28	bd1	bd1	0.29	bd1
14	1.50	1.13	bd1	bd1	0.79	1.7
15	1.34	0.85	bd1	bd1	0.65	3.2
16	0.95	1.45	bd1	bd1	0.60	bd1
17	1.33	3.88	bd1	bd1	1.36	2.3
18	4.26	7.90	bd1	bd1	3.83	2.6
19	3.22	1.77	bd1	bd1	1.35	bd1
20	0.83	0.18	bd1	0.06	0.36	bd1
21	1.20	0.35	bd1	0.09	0.43	bd1
22	1.39	1.20	bd1	0.15	0.50	0.8
23	0.87	0.50	bd1	bd1	0.36	1.0
24	1.35	0.75	bd1	0.06	0.55	1.7
25	0.68	0.14	bd1	bd1	bd1	0.9
26	0.64	0.43	bd1	bd1	0.25	0.8
27	0.65	1.52	bd1	bd1	0.70	1.0
28	1.51	4.34	bd1	bd1	1.59	bd1
29	2.44	5.99	bd1	bd1	2.36	1.2
30	2.31	2.08	bd1	bd1	1.28	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	30	-	-	30	30
A. MEAN	1.10	1.31	-	-	0.64	0.7
S.D.	0.94	1.91	-	-	0.84	0.9
MIN.	bd1	bd1	-	-	bd1	bd1
MAX.	4.26	7.90	-	-	3.83	3.2

PRECIPITATION CONCENTRATIONS (10^{-3} g l^{-1})

DAY	AMOUNT		PH	SO_4^{2-}	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	ION BAL. RATIO +VE/-VE	PRECIP TYPE
	STD (mm)	COLL (mm)												
2	1.2	0.7	-	2.0	-	1.1	-	-	-	-	-	-	-	2
10	6.4	6.2	5.70	BDL	BDL	0.1	0.06	BDL	0.02	0.14	0.02	0.009	-	2
19	9.8	7.8	4.40	2.8	2.242	0.1	0.28	0.480	0.03	0.25	0.06	0.004	0.96	1
20	18.6	7.8	5.40	0.4	0.133	0.1	BDL	BDL	0.01	0.07	0.07	0.003	-	4
29	1.0	1.8	5.70	0.7	0.058	0.4	0.34	BDL	0.03	-	-	-	-	2
TOTAL PRECIP	37.0	24.3												
NO. OBS.	5	5	4	5	4	5	4	4	4	3	3	3	-	
A. MEAN	7.4	4.9	4.92	1.2	0.608	0.4	0.17	0.120	0.02	0.15	0.05	0.005	-	
STD. DEV.	7.3	3.4	4.73	1.2	1.091	0.4	0.17	0.240	0.01	0.09	0.03	0.003	-	
MINIMUM	1.0	0.7	4.40	BDL	BDL	0.1	BDL	BDL	0.01	0.07	0.02	0.003	-	
MAXIMUM	18.6	7.8	5.70	2.8	2.242	1.1	0.34	0.480	0.03	0.25	0.07	0.009	-	
P.W. MEAN			4.87	1.0	0.684	0.1	0.10	0.131	0.02	0.13	0.06	0.005		

PRECIP TYPE

1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN

- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

ELA (DECEMBER 1982)

-3 -1

PRECIPITATION CONCENTRATIONS (10⁻³ gl⁻¹)

DAY	AMOUNT		PH	SO4=	NO3-	Cl-	Ca++	NH4+	Mg++	Na+	K+	TOT P	ION BAL.	PRECIP TYPE
	STD (mm)	COLL (mm)											RATIO +VE/-VE	
2	3.4	3.6	4.40	3.0	1.644	0.3	0.40	0.240	0.04	0.20	0.16	-	0.91	2
5	0.2	1.0	-	-	-	-	-	-	-	-	-	-	-	2
11	BDL	1.0	-	3.3	-	1.2	-	-	-	-	-	-	-	2
16	2.7	1.0	5.20	1.4	-	0.9	-	-	-	-	-	-	-	2
19	2.0	BDL	4.90	1.0	1.081	0.8	0.28	0.053	0.04	-	-	-	-	2
21	1.8	1.6	4.90	0.5	0.899	0.7	0.15	0.045	0.02	-	-	-	-	2
22	3.2	2.6	4.50	2.2	3.850	0.6	0.36	0.857	0.04	0.23	0.08	-	0.89	2
23	0.4	1.3	4.30	2.4	2.937	0.9	-	0.728	-	-	-	-	-	4
30	0.6	0.7	-	3.0	-	2.2	-	-	-	-	-	-	-	2
31	2.0	2.3	4.60	0.3	1.285	0.2	BDL	0.067	BDL	0.08	0.06	-	-	2
TOTAL PRECIP	16.3	15.1												
NO. OBS.	10	10	7	9	-	9	-	-	-	-	-	-	-	
A. MEAN	1.6	1.5	4.59	1.9	-	0.9	-	-	-	-	-	-	-	
STD. DEV.	1.3	1.1	4.79	1.1	-	0.6	-	-	-	-	-	-	-	
MINIMUM	BDL	BDL	4.30	0.3	-	0.2	-	-	-	-	-	-	-	
MAXIMUM	3.4	3.6	5.20	3.3	-	2.2	-	-	-	-	-	-	-	
P.W. MEAN			4.62	1.7	-	0.6	-	-	-	-	-	-	-	

PRECIP TYPE

1 - RAIN

2 - SNOW

3 - MIXED

4 - UNCERTAIN

- - MISSING DATA

BDL - BELOW DETECTION LIMIT

APPENDIX 2

MONTHLY SUMMARIES OF MEASURED CONCENTRATIONS IN AIR AND PRECIPITATION AT ALGOMA

ALGOMA

JANUARY 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	0.57	0.27	bd1	bd1	bd1	1.2
2	0.87	0.41	bd1	bd1	bd1	2.2
3	1.86	0.84	bd1	bd1	0.36	2.1
4	1.24	0.21	1.23	0.28	bd1	1.4
5	1.80	1.28	0.33	0.12	0.27	2.4
6	1.01	0.22	bd1	bd1	bd1	1.7
7	0.90	bd1	bd1	bd1	bd1	6.9
8	1.34	0.35	bd1	bd1	bd1	3.5
9	0.80	bd1	0.21	bd1	bd1	2.1
10	0.59	bd1	2.60	0.90	bd1	0.4
11	9.07	bd1	1.60	0.40	bd1	bd1
12	0.89	0.58	1.21	0.35	bd1	0.7
13	0.90	0.46	bd1	bd1	bd1	2.8
14	2.45	1.02	bd1	0.11	0.35	10.4
15	2.76	1.08	bd1	bd1	0.68	11.0
16	9.07	5.66	0.79	0.67	1.83	72.3
17	-	-	-	-	-	-
18	-	-	-	-	-	-
19	4.82	1.22	0.24	0.36	0.54	bd1
20	bd1	bd1	bd1	bd1	bd1	bd1
21	bd1	bd1	bd1	bd1	bd1	bd1
22	bd1	bd1	bd1	bd1	bd1	bd1
23	1.83	0.84	bd1	0.11	0.37	6.7
24	1.09	0.40	bd1	0.11	bd1	9.4
25	1.23	0.28	bd1	bd1	bd1	4.4
26	1.87	1.26	bd1	bd1	bd1	4.7
27	3.75	4.37	0.16	0.10	1.59	21.6
28	1.63	0.27	bd1	0.16	bd1	2.2
29	1.29	0.92	bd1	bd1	0.37	2.5
30	1.40	0.51	bd1	bd1	0.32	2.8
31	0.83	bd1	bd1	bd1	bd1	1.7

bd1 - BELOW DETECTION LIMIT

NO. OBS.	29	29	-	-	-	29
A. MEAN	1.93	0.78	-	-	-	6.1
S.D.	2.24	1.26	-	-	-	13.5
MIN.	bd1	bd1	-	-	-	bd1
MAX.	9.07	5.66	-	-	-	72.3

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL.	
	STD (mm)	COLL (mm)											RATIO +VE/-VE	PRECIP TYPE
2	-	4.3	4.30	1.8	2.552	0.2	0.13	0.219	0.02	0.12	0.05	0.020	0.92	2
3	-	0.6	5.30	1.5	-	0.7	-	-	-	-	-	-	-	2
4	-	0.2	-	2.8	-	3.4	-	-	-	-	-	-	-	2
5 [4]	15.9	0.4	-	2.8	-	1.0	-	-	-	-	-	-	-	2
6	-	3.6	5.00	0.9	0.439	0.1	0.12	0.088	0.03	0.19	0.04	0.009	1.07	2
7	-	1.7	6.00	0.7	0.735	0.6	0.13	0.267	0.03	0.57	0.13	-	1.09	2
8 [3]	11.8	1.4	7.00	1.3	-	1.9	0.32	-	0.06	1.59	0.41	-	-	2
9	-	2.3	5.40	0.8	0.182	0.4	0.14	0.070	0.04	0.46	0.04	0.012	1.18	2
10	-	6.2	5.30	0.6	0.075	1.1	0.11	0.021	0.09	0.81	0.05	0.010	1.19	2
11 [3]	14.6	0.2	-	2.2	-	4.5	-	-	-	-	-	-	-	2
12	-	0.4	-	0.5	-	1.4	-	-	-	-	-	-	-	2
13	-	0.1	-	4.0	-	7.6	-	-	-	-	-	-	-	2
15 [4]	7.5	6.1	4.30	BDL	3.221	0.2	0.09	0.041	0.02	0.28	0.01	0.001	-	2
16 [3]	4.9	-	-	-	-	-	-	-	-	-	-	-	-	2
19	-	0.9	4.00	6.0	-	0.7	-	-	-	-	-	-	-	2
20 [4]	8.0	BDL	-	-	-	-	-	-	-	-	-	-	-	2
23 [3]	6.8	2.6	4.40	0.4	3.176	0.2	0.15	0.090	0.03	0.31	0.03	0.007	1.07	2
26	-	0.2	-	3.6	-	2.4	-	-	-	-	-	-	-	2
27	-	1.8	4.40	2.8	2.658	0.6	0.43	0.141	0.07	1.04	0.02	-	1.02	2
28	-	7.0	4.60	1.4	0.354	0.1	0.10	0.057	0.03	0.09	0.01	0.001	1.05	2
29 [4]	23.2	13.6	4.50	0.7	2.095	0.2	0.24	0.089	0.03	0.16	0.02	0.001	1.09	2
TOTAL PRECIP	92.7	53.6												
NO. OBS.	-	20	13	19	10	19	11	10	11	11	11	8	9	
A. MEAN	-	2.7	4.56	1.8	1.549	1.4	0.18	0.108	0.04	0.51	0.07	0.008	1.08	
STD. DEV.	-	3.4	4.54	1.5	1.306	1.9	0.11	0.079	0.02	0.47	0.12	0.007	0.08	
MINIMUM	-	BDL	4.00	BDL	0.075	0.1	0.09	0.021	0.02	0.09	0.01	0.001	0.92	
MAXIMUM	-	13.6	7.00	6.0	3.221	7.6	0.43	0.267	0.09	1.59	0.41	0.020	1.19	
P.W. MEAN			4.55	1.0	1.592	0.4	0.16	0.088	0.04	0.35	0.04	0.006		

PRECIP TYPE

- 1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN
- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

DAY[] - DENOTES A MULTIPLE DAY STANDARD PRECIPITATION GAUGE SAMPLE OF DURATION SHOWN IN BRACKETS

FEBRUARY 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	1.76	0.86	bd1	bd1	bd1	3.7
2	3.50	2.00	bd1	bd1	0.78	7.4
3	2.00	0.26	bd1	bd1	bd1	3.0
4	1.87	0.61	bd1	0.19	0.28	4.3
5	2.04	0.66	bd1	0.13	0.24	3.7
6	2.55	1.72	bd1	0.09	0.65	8.2
7	0.93	0.28	bd1	bd1	bd1	2.0
8	1.17	0.75	0.51	0.41	bd1	1.9
9	1.10	0.70	0.92	0.64	bd1	1.3
10	1.72	2.03	bd1	0.19	0.60	6.0
11	2.11	1.53	bd1	bd1	0.69	6.4
12	1.15	0.25	bd1	bd1	bd1	1.9
13	1.27	0.54	bd1	bd1	0.22	3.3
14	8.19	3.60	bd1	bd1	1.60	14.6
15	6.62	2.06	bd1	bd1	1.69	4.6
16	1.09	0.38	bd1	bd1	bd1	6.5
17	-	-	-	-	-	-
18	-	-	-	-	-	-
19	-	-	-	-	-	-
20	2.10	1.04	bd1	bd1	0.51	3.4
21	2.65	bd1	bd1	bd1	0.34	5.5
22	3.29	0.84	bd1	bd1	0.64	6.3
23	0.67	bd1	bd1	bd1	bd1	0.6
24	0.73	bd1	bd1	bd1	0.32	2.3
25	0.92	0.18	bd1	bd1	0.22	1.8
26	1.44	0.54	bd1	bd1	0.36	6.5
27	1.18	bd1	bd1	bd1	0.25	15.0
28	1.90	0.69	bd1	bd1	0.39	9.3

bd1 - BELOW DETECTION LIMIT

NO. OBS.	25	25	-	-	25	25
A. MEAN	2.16	0.86	-	-	0.39	5.2
S.D.	1.76	0.87	-	-	0.45	3.7
MIN.	0.67	bd1	-	-	bd1	0.6
MAX.	8.19	3.60	-	-	1.69	15.0

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO4=	NO3-	Cl-	Ca++	NH4+	Mg++	Na+	K+	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)											+VE/-VE		
1	11.9	5.0	4.30	0.5	3.212	0.3	0.14	0.080	0.03	0.08	0.01	0.002	0.97		2
2	-	7.4	4.40	0.7	2.627	0.2	0.09	0.081	0.02	0.12	0.01	0.002	0.89		2
4	-	0.2	-	2.1	-	1.4	-	-	-	-	-	-	-		2
5 [5]	4.1	0.7	4.70	0.7	-	0.4	-	-	-	-	-	-	-		2
6	-	3.9	4.60	0.8	1.900	0.2	0.24	0.115	0.06	0.11	0.02	0.009	1.02		2
7	-	7.1	4.70	0.9	0.509	0.1	0.08	0.061	0.02	0.10	0.02	0.004	1.09		2
8 [3]	23.4	2.9	4.70	0.6	0.682	0.6	0.12	0.044	0.04	0.56	0.11	0.004	1.43		2
9	-	1.8	4.80	0.6	-	0.5	0.11	-	0.04	0.29	0.03	-	-		2
10	-	BDL	-	-	-	-	-	-	-	-	-	-	-		2
11	-	3.2	4.50	0.9	1.816	0.1	0.12	0.103	0.02	0.08	0.02	0.005	0.93		2
12 [4]	9.6	0.6	4.70	0.9	-	0.6	-	-	-	-	-	-	-		2
13	3.0	1.3	3.80	0.8	2.184	1.2	-	0.773	-	-	-	0.018	-		2
18	-	0.2	-	-	-	-	-	-	-	-	-	-	-		4
19 [2]	1.6	0.7	4.50	3.4	3.057	0.4	-	0.708	-	-	-	-	-		4
20	-	0.4	-	-	-	-	-	-	-	-	-	-	-		4
22 [3]	6.9	5.6	4.20	3.6	3.854	0.3	0.18	1.245	0.04	0.10	0.03	0.005	1.03		2
25	-	0.2	-	-	-	-	-	-	-	-	-	-	-		4
26 [2]	2.5	1.7	4.50	2.9	2.817	0.3	0.15	0.182	0.04	0.22	0.02	-	0.55		4
27	-	4.6	4.10	3.4	4.607	0.8	-	1.112	-	-	-	0.005	-		2
28 [2]	12.7	2.1	4.80	2.0	0.864	0.8	-	0.308	-	-	-	0.004	-		2
TOTAL PRECIP	75.7	49.6													
NO. OBS.	-	20	15	16	12	16	-	12	-	-	-	10	-		
A. MEAN	-	2.5	4.38	1.5	2.344	0.5	-	0.401	-	-	-	0.006	-		
STD. DEV.	-	2.4	4.43	1.2	1.272	0.4	-	0.440	-	-	-	0.005	-		
MINIMUM	-	BDL	3.80	0.5	0.509	0.1	-	0.044	-	-	-	0.002	-		
MAXIMUM	-	7.4	4.80	3.6	4.607	1.4	-	1.245	-	-	-	0.018	-		
P.W. MEAN	-		4.38	1.5	2.388	0.4	-	0.371	-	-	-	0.005	-		

PRECIP TYPE

1 - RAIN

2 - SNOW

3 - MIXED

4 - UNCERTAIN

- - MISSING DATA

BDL - BELOW DETECTION LIMIT

DAY[] - DENOTES A MULTIPLE DAY STANDARD PRECIPITATION GAUGE SAMPLE OF DURATION SHOWN IN BRACKETS

ALGOMA

MARCH 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁻	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	1.96	0.24	bd1	bd1	0.36	2.1
2	1.47	bd1	bd1	0.08	0.20	1.3
3	1.81	0.24	bd1	bd1	0.22	2.2
4	1.39	0.21	bd1	bd1	0.21	3.0
5	1.81	0.45	bd1	bd1	0.35	2.9
6	1.78	1.46	bd1	bd1	0.55	4.0
7	3.01	0.42	0.21	0.19	0.25	5.6
8	2.13	0.65	0.15	0.17	0.29	4.3
9	6.85	1.64	bd1	0.13	0.74	12.8
10	12.08	5.54	bd1	bd1	1.73	21.5
11	9.86	1.39	bd1	bd1	1.06	11.0
12	5.08	1.38	bd1	bd1	0.90	9.9
13	2.18	0.28	bd1	bd1	0.30	1.8
14	1.27	bd1	bd1	bd1	bd1	0.6
15	1.59	bd1	bd1	bd1	bd1	18.0
16	1.19	0.24	bd1	bd1	bd1	8.8
17	1.99	0.29	bd1	bd1	bd1	5.8
18	3.66	0.33	bd1	bd1	0.23	6.3
19	1.50	0.22	bd1	0.12	0.23	1.8
20	1.14	bd1	bd1	bd1	bd1	12.2
21	2.29	0.22	bd1	bd1	bd1	9.5
22	1.78	bd1	bd1	bd1	0.27	1.0
23	3.45	3.30	bd1	bd1	2.16	7.5
24	1.67	0.60	bd1	bd1	0.38	1.8
25	2.12	bd1	bd1	0.08	bd1	4.7
26	1.85	bd1	bd1	0.10	bd1	1.4
27	2.30	0.38	bd1	0.14	bd1	2.0
28	3.46	4.76	bd1	bd1	1.34	7.0
29	4.71	6.11	bd1	bd1	1.67	17.6
30	3.20	2.58	bd1	bd1	0.95	16.0
31	1.58	0.29	bd1	bd1	0.28	0.4

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	-	31	31
A. MEAN	2.97	1.07	-	-	0.47	6.6
S.D.	2.50	1.67	-	-	0.58	5.8
MIN.	1.14	bd1	-	-	bd1	0.4
MAX.	12.08	6.11	-	-	2.16	21.5

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO4=	NO3-	Cl-	Ca++	NH4+	Mg++	Na+	K+	TOT P	ION BAL.	PRECIP
	STD (mm)	COLL (mm)											RATIO +VE/-VE	TYPE
4	0.8	0.1	-	-	-	-	-	-	-	-	-	-	-	2
8	2.7	0.9	6.30	1.2	2.153	3.1	-	0.782	-	-	-	-	-	2
10	-	3.6	3.80	6.3	10.211	0.7	1.09	1.834	0.13	0.37	0.13	0.021	1.10	2
12	-	15.6	4.20	2.1	1.639	0.3	0.11	0.166	0.02	0.07	0.03	0.005	1.05	4
13 [4]	35.6	2.8	4.80	2.3	1.054	0.3	0.30	0.396	0.05	0.11	0.03	0.013	0.84	2
16	-	2.5	4.30	1.6	-	0.3	0.20	-	0.03	0.13	BDL	-	-	4
17	-	1.2	4.50	0.8	0.886	0.3	0.11	BDL	0.02	0.10	BDL	-	-	4
18 [3]	12.0	2.1	4.30	2.1	-	0.5	0.38	-	0.05	0.18	0.03	-	-	4
23	-	4.8	4.20	3.9	5.582	0.4	0.44	1.592	0.07	0.13	0.05	0.004	1.02	2
24 [2]	12.8	4.7	4.30	3.3	1.816	0.4	0.21	0.764	0.03	0.17	0.03	0.003	1.04	4
30	-	20.7	4.60	1.6	0.930	0.4	0.23	0.342	0.03	0.06	0.02	0.004	1.05	4
31	-	11.7	4.50	1.8	0.620	0.5	0.18	0.253	0.03	0.08	0.03	0.007	1.01	1
TOTAL PRECIP	63.9	70.7												
NO. OBS.	-	12	11	11	9	11	10	9	10	10	10	7	7	
A. MEAN	-	5.9	4.31	2.5	2.766	0.6	0.32	0.681	0.05	0.14	0.03	0.008	1.01	
STD. DEV.	-	6.5	4.38	1.6	3.169	0.8	0.29	0.641	0.03	0.09	0.04	0.007	0.08	
MINIMUM	-	0.1	3.80	0.8	0.620	0.3	0.11	BDL	0.02	0.06	BDL	0.003	0.84	
MAXIMUM	-	20.7	6.30	6.3	10.211	3.1	1.09	1.834	0.13	0.37	0.13	0.021	1.10	
P.W. MEAN		4.33	2.3	1.971	0.4	0.26	0.489	0.04	0.10	0.03	0.006			

PRECIP TYPE

1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN

- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

DAY[]-DENOTES A MULTIPLE DAY STANDARD PRECIPITATION GAUGE SAMPLE OF DURATION SHOWN IN BRACKETS

ALGOMA

APRIL 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	SO ₂
1	1.35	0.35	bd1	0.12	bd1	0.5
2	1.62	1.29	bd1	bd1	0.38	7.2
3	2.06	0.38	bd1	0.11	0.30	2.1
4	4.30	bd1	bd1	0.14	0.53	2.4
5	3.79	bd1	bd1	0.09	0.34	1.6
6	2.59	bd1	bd1	bd1	0.28	1.2
7	3.70	0.27	bd1	bd1	0.35	1.4
8	2.88	0.21	bd1	bd1	0.40	1.5
9	3.32	1.21	bd1	bd1	0.92	1.2
10	8.53	1.74	bd1	bd1	1.70	3.1
11	4.17	0.29	bd1	bd1	0.80	bd1
12	3.73	0.69	bd1	bd1	0.80	4.7
13	1.63	bd1	bd1	bd1	0.24	1.8
14	2.98	0.43	bd1	bd1	0.45	4.9
15	5.97	-	-	-	-	17.4
16	7.93	-	-	-	-	8.2
17	1.20	-	-	-	-	1.1
18	0.91	-	-	-	-	0.4
19	1.64	-	-	-	-	0.4
20	2.20	bd1	bd1	bd1	0.24	6.2
21	1.56	bd1	bd1	bd1	bd1	bd1
22	2.19	0.51	bd1	bd1	0.50	1.7
23	1.78	2.13	bd1	bd1	0.94	2.4
24	3.40	5.48	bd1	bd1	1.73	5.4
25	5.34	2.81	bd1	bd1	1.49	6.0
26	2.32	bd1	bd1	bd1	0.21	bd1
27	2.15	0.18	bd1	bd1	0.25	0.5
28	2.20	0.20	bd1	bd1	0.26	1.0
29	2.70	0.39	bd1	bd1	0.47	1.7
30	5.62	1.28	bd1	bd1	0.94	5.2

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	25	-	-	25	30
A. MEAN	3.19	0.79	-	-	0.58	3.0
S.D.	1.89	1.23	-	-	0.48	3.6
MIN.	0.91	bd1	-	-	bd1	bd1
MAX.	8.53	5.48	-	-	1.73	17.4

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL.	
	STD (mm)	COLL (mm)											RATIO +VE/-VE	PRECIP TYPE
2 [4]	56.5	20.0	4.30	1.7	1.019	0.4	0.16	0.138	0.01	0.04	BDL	0.003	-	4
3	12.1	8.2	6.80	2.1	1.152	0.4	4.03	0.307	0.18	0.10	0.24	0.046	2.26	4
10	-	6.0	4.20	4.0	2.702	0.4	0.16	1.262	0.02	0.19	0.04	0.003	1.09	4
12 [3]	27.5	11.4	4.30	2.4	2.348	0.5	0.10	0.731	0.01	0.05	BDL	0.003	-	2
15	-	0.8	4.40	9.9	-	0.6	2.78	-	0.26	-	-	-	-	4
16	-	1.1	3.70	15.5	-	0.7	1.82	-	0.59	-	-	-	-	1
17	-	0.8	4.00	6.3	-	0.2	0.39	-	0.07	-	-	-	-	1
18	-	9.4	5.20	0.8	0.797	0.1	BDL	0.320	BDL	0.04	BDL	0.001	-	2
19 [5]	24.6	0.2	-	4.7	-	1.3	-	-	-	-	-	-	-	2
20	2.3	2.1	4.20	3.2	1.329	0.1	0.23	0.364	0.03	0.10	0.02	-	1.13	1
25	14.4	13.2	6.00	3.8	2.126	0.2	0.67	1.376	0.08	0.15	0.06	0.007	1.01	1
TOTAL PRECIP	137.4	73.2												
NO. OBS.	-	11	10	11	7	11	10	7	10	7	7	6	-	
A. MEAN	-	6.7	4.24	4.9	1.639	0.4	1.03	0.643	0.12	0.10	0.05	0.010	-	
STD. DEV.	-	6.4	4.23	4.3	0.741	0.3	1.39	0.496	0.18	0.06	0.09	0.017	-	
MINIMUM	-	0.2	3.70	0.8	0.797	0.1	BDL	0.138	BDL	0.04	BDL	0.001	-	
MAXIMUM	-	20.0	6.80	15.5	2.702	1.3	4.03	1.376	0.59	0.19	0.24	0.046	-	
P.W. MEAN			4.47	2.7	1.581	0.3	0.72	0.613	0.05	0.08	0.04	0.009		

PRECIP TYPE

1 - RAIN

- - MISSING DATA

BDL - BELOW DETECTION LIMIT

2 - SNOW

3 - MIXED

4 - UNCERTAIN

DAY[]-DENOTES A MULTIPLE DAY STANDARD PRECIPITATION GAUGE SAMPLE OF DURATION SHOWN IN BRACKETS

ALGOMA

MAY 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	6.21	3.76	bd1	bd1	1.71	6.3
2	4.91	1.33	bd1	bd1	1.03	1.5
3	3.07	0.59	bd1	bd1	0.60	0.9
4	5.55	2.64	bd1	bd1	1.23	11.2
5	12.97	6.27	bd1	bd1	2.59	12.5
6	6.55	2.39	bd1	bd1	1.66	2.5
7	0.50	0.67	bd1	bd1	bd1	0.4
8	0.64	0.60	bd1	bd1	0.22	bd1
9	0.69	0.35	bd1	bd1	bd1	1.9
10	1.28	0.86	bd1	bd1	0.32	4.2
11	4.47	1.82	bd1	bd1	1.24	4.5
12	0.87	0.18	bd1	bd1	bd1	bd1
13	3.22	0.42	bd1	bd1	0.38	36.9
14	3.51	2.12	bd1	bd1	0.91	11.9
15	9.52	3.07	bd1	bd1	1.93	10.0
16	0.97	0.37	bd1	bd1	bd1	bd1
17	2.90	0.70	bd1	bd1	0.47	9.4
18	4.92	3.05	bd1	bd1	1.52	8.7
19	2.20	1.20	bd1	bd1	0.62	1.1
20	0.40	0.18	bd1	bd1	bd1	bd1
21	1.08	1.24	bd1	bd1	bd1	2.1
22	1.50	0.55	bd1	bd1	-	-
23	2.95	0.84	bd1	bd1	1.05	7.3
24	3.25	0.44	bd1	bd1	0.78	3.7
25	3.67	0.73	bd1	bd1	1.18	2.5
26	5.00	1.25	bd1	bd1	1.70	4.5
27	19.38	2.43	bd1	bd1	4.39	13.6
28	19.60	1.07	bd1	bd1	3.82	6.1
29	7.41	0.70	bd1	bd1	1.88	bd1
30	5.62	0.40	bd1	bd1	1.37	bd1
31	3.83	0.51	bd1	bd1	1.17	0.5

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	-	30	30
A. MEAN	4.79	1.38	-	-	1.13	5.5
S.D.	4.83	1.33	-	-	1.07	7.3
MIN.	0.40	0.18	-	-	bd1	bd1
MAX.	19.60	6.27	-	-	4.39	36.9

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO	PRECIP TYPE
	STD (mm)	COLL (mm)											+VE/-VE	
4	-	1.4	3.70	23.9	15.682	0.7	4.21	4.867	0.77	-	-	-	-	1
5	-	1.8	4.00	10.1	6.689	0.4	1.82	1.708	0.23	0.13	0.08	-	0.95	1
6 [3]	7.0	1.7	3.90	10.7	5.670	0.4	0.78	2.118	0.17	0.14	0.07	-	0.93	1
9	-	3.8	4.20	2.0	0.337	0.2	0.41	0.023	BDL	0.36	0.05	0.006	-	1
10 [2]	15.7	10.1	4.10	3.9	2.530	0.3	1.35	0.684	BDL	0.14	0.07	0.008	-	1
13	-	0.5	-	9.6	-	1.0	-	-	-	-	-	-	-	1
14 [2]	2.2	0.3	3.70	12.9	-	0.9	-	-	-	-	-	-	-	1
16	-	BDL	-	-	-	-	-	-	-	-	-	-	-	1
17 [2]	6.2	4.9	3.80	7.8	6.069	0.5	1.82	1.471	0.03	0.19	0.14	0.040	1.26	1
19	4.4	3.4	4.50	1.3	0.297	0.2	0.24	0.023	BDL	0.21	0.03	0.029	-	1
28	-	BDL	-	-	-	-	-	-	-	-	-	-	-	1
31 [4]	4.6	3.6	4.40	1.7	1.014	0.1	BDL	0.248	BDL	0.10	0.03	0.009	-	1
TOTAL PRECIP	40.1	31.5												
NO. OBS.	-	12	9	10	8	10	8	8	8	7	7	5	-	
A. MEAN	-	2.6	3.96	8.4	4.786	0.5	1.33	1.393	0.15	0.18	0.07	0.018	-	
STD. DEV.	-	2.9	4.19	6.9	5.127	0.3	1.36	1.615	0.27	0.09	0.04	0.015	-	
MINIMUM	-	BDL	3.70	1.3	0.297	0.1	BDL	0.023	BDL	0.10	0.03	0.006	-	
MAXIMUM	-	10.1	4.50	23.9	15.682	1.0	4.21	4.867	0.77	0.36	0.14	0.040	-	
P.W. MEAN			4.04	5.5	3.416	0.3	1.15	0.934	0.06	0.18	0.07	0.017		

PRECIP TYPE

- 1 - RAIN
 - 2 - SNOW
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 - 4 - UNCERTAIN
- - MISSING DATA
BDL - BELOW DETECTION LIMIT

DAY[]-DENOTES A MULTIPLE DAY STANDARD PRECIPITATION GAUGE SAMPLE OF DURATION SHOWN IN BRACKETS

ALGOMA

JUNE 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	bd1	bd1	bd1	bd1	bd1	0.5
2	bd1	bd1	bd1	bd1	bd1	0.5
3	0.36	bd1	bd1	bd1	0.25	3.4
4	0.47	0.18	bd1	bd1	0.34	2.0
5	0.45	0.28	bd1	bd1	0.50	0.9
6	2.01	0.42	bd1	bd1	0.99	2.8
7	2.93	0.83	bd1	bd1	1.27	0.6
8	0.96	0.23	bd1	bd1	0.28	bd1
9	4.83	1.13	bd1	bd1	1.66	1.0
10	0.97	0.39	bd1	bd1	bd1	bd1
11	1.24	0.51	bd1	bd1	0.62	2.7
12	0.80	0.21	bd1	bd1	0.42	0.6
13	0.57	bd1	bd1	bd1	0.24	bd1
14	1.76	0.36	bd1	bd1	0.52	0.7
15	1.46	0.48	bd1	bd1	2.72	1.0
16	bd1	bd1	bd1	bd1	bd1	0.9
17	3.51	bd1	bd1	bd1	-	bd1
18	bd1	bd1	bd1	bd1	bd1	0.5
19	-	-	-	-	-	-
20	-	-	-	-	-	-
21	1.28	0.34	bd1	bd1	bd1	1.2
22	bd1	bd1	bd1	bd1	bd1	bd1
23	1.07	bd1	bd1	bd1	bd1	bd1
24	2.95	1.27	bd1	bd1	0.67	1.0
25	0.47	bd1	bd1	bd1	bd1	0.6
26	1.05	0.18	bd1	bd1	bd1	1.1
27	2.29	0.50	bd1	bd1	0.79	1.0
28	2.58	0.45	bd1	bd1	0.91	0.9
29	-	-	-	-	-	-
30	-	-	-	-	-	-

bd1 - BELOW DETECTION LIMIT

NO. OBS.	26	26	-	-	25	26
A. MEAN	1.31	0.30	-	-	0.49	0.9
S.D.	1.24	0.35	-	-	0.65	0.9
MIN.	bd1	bd1	-	-	bd1	bd1
MAX.	4.83	1.27	-	-	2.72	3.4

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)											+VE/-VE		
7	4.0	3.0	4.10	6.0	3.190	0.2	1.15	1.224	0.10	0.16	0.15	0.028	1.22		1
9	-	8.8	3.90	6.9	4.829	0.2	0.58	0.960	0.06	0.06	0.04	0.006	0.95		1
11 [3]	9.9	0.3	-	3.3	-	0.4	0.95	-	0.11	-	-	-	-		1
12	2.6	2.0	4.40	2.3	0.886	0.3	0.25	0.255	0.02	0.51	0.10	0.006	1.30		1
13	0.8	0.7	5.00	1.0	BDL	0.6	0.82	BDL	0.09	-	-	-	-		1
14 [2]	15.4	14.9	4.40	1.8	1.285	0.2	0.23	0.726	0.02	0.41	0.05	0.002	1.79		1
16 [2]	2.0	1.5	5.00	2.3	2.082	1.1	0.45	0.854	0.07	0.09	0.19	0.005	0.82		1
18 [2]	2.2	1.5	4.30	1.8	0.620	0.4	0.19	0.044	0.01	0.39	0.12	0.008	1.39		1
20 [3]	5.2	4.4	5.40	BDL	0.177	0.4	0.06	0.035	BDL	0.18	0.22	0.006	-		1
23 [3]	10.1	9.1	4.60	2.0	1.551	0.3	0.74	0.628	0.07	0.07	0.09	0.003	1.45		1
26	7.0	6.1	3.90	4.1	2.140	0.3	0.28	0.583	0.05	0.09	0.14	0.005	1.43		1
TOTAL PRECIP	59.2	52.3													
NO. OBS.	10	11	10	11	10	11	11	10	11	9	9	9	8		
A. MEAN	5.9	4.8	4.29	2.9	1.676	0.4	0.52	0.531	0.05	0.22	0.12	0.008	1.29		
STD. DEV.	4.7	4.6	4.34	2.1	1.475	0.3	0.36	0.429	0.04	0.17	0.06	0.008	0.30		
MINIMUM	0.8	0.3	3.90	BDL	BDL	0.2	0.06	BDL	BDL	0.06	0.04	0.002	0.82		
MAXIMUM	15.4	14.9	5.40	6.9	4.829	1.1	1.15	1.224	0.11	0.51	0.22	0.028	1.79		
P.W. MEAN			4.22	3.1	2.019	0.3	0.44	0.658	0.04	0.21	0.09	0.005			

PRECIP TYPE

1 - RAIN
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- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

DAY[]-DENOTES A MULTIPLE DAY STANDARD PRECIPITATION GAUGE SAMPLE OF DURATION SHOWN IN BRACKETS

ALGOMA

JULY 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2
1	bd1	bd1	bd1	bd1	bd1	bd1
2	0.62	bd1	bd1	bd1	0.30	0.5
3	0.56	bd1	bd1	bd1	0.19	0.4
4	bd1	bd1	bd1	bd1	bd1	bd1
5	5.82	1.26	bd1	bd1	2.00	3.0
6	4.30	0.83	bd1	bd1	0.92	3.5
7	0.55	0.32	bd1	bd1	bd1	bd1
8	0.59	bd1	bd1	bd1	0.31	bd1
9	bd1	bd1	bd1	bd1	bd1	bd1
10	-	1.83	bd1	bd1	2.08	6.3
11	1.84	bd1	bd1	bd1	bd1	bd1
12	1.30	bd1	bd1	bd1	bd1	bd1
13	3.62	1.12	bd1	bd1	bd1	1.5
14	7.24	1.96	bd1	bd1	1.42	1.3
15	13.53	1.66	bd1	bd1	3.23	1.4
16	29.25	1.89	bd1	bd1	4.86	11.2
17	6.96	1.34	bd1	bd1	2.04	1.7
18	0.47	bd1	bd1	bd1	bd1	bd1
19	bd1	bd1	bd1	bd1	bd1	bd1
20	bd1	bd1	bd1	bd1	bd1	0.9
21	1.45	0.74	bd1	bd1	0.54	0.9
22	1.68	bd1	bd1	bd1	0.41	2.1
23	0.92	bd1	0.21	bd1	bd1	5.3
24	5.95	1.11	bd1	bd1	1.84	3.0
25	2.10	bd1	bd1	bd1	bd1	bd1
26	0.62	bd1	bd1	bd1	bd1	bd1
27	0.64	bd1	bd1	bd1	bd1	0.6
28	bd1	bd1	bd1	bd1	bd1	bd1
29	1.11	0.36	bd1	bd1	bd1	bd1
30	4.12	0.55	bd1	bd1	0.88	bd1
31	3.39	0.55	bd1	bd1	1.13	0.6

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	-	-	-	-	31
A. MEAN	3.29	-	-	-	-	1.4
S.D.	5.76	-	-	-	-	2.4
MIN.	bd1	-	-	-	-	bd1
MAX.	29.25	-	-	-	-	11.2

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

														ION BAL.	
DAY	AMOUNT		PH	SO4=	NO3-	Cl-	Ca++	NH4+	Mg++	Na+	K+	TOT P	RATIO +VE/-VE	PRECIP TYPE	
	STD (mm)	COLL (mm)													
8 [5]	39.9	39.4	4.40	1.7	0.877	0.1	0.06	0.147	0.02	BDL	0.02	0.001	-	1	
13	1.7	1.1	4.20	2.8	-	0.3	0.27	-	0.01	0.04	0.21	-	-	1	
14 [4]	24.1	24.3	3.70	9.3	4.829	0.2	0.38	0.829	0.07	BDL	0.05	0.002	-	1	
18 [8]	2.4	1.8	4.00	8.7	4.519	0.4	0.56	1.806	0.13	0.41	0.23	-	0.99	1	
26 [5]	2.4	1.5	3.80	6.9	4.076	0.6	0.49	1.007	0.09	0.63	0.16	0.018	1.23	1	
31 [3]	20.0	20.8	5.00	BDL	0.576	0.4	BDL	0.257	BDL	0.05	0.04	0.026	-	1	
TOTAL PRECIP	90.5	88.9													
NO. OBS.	6	6	6	6	5	6	6	5	6	6	6	4	-		
A. MEAN	15.1	14.8	4.02	4.9	2.975	0.3	0.29	0.809	0.05	0.19	0.12	0.012	-		
STD. DEV.	15.6	15.9	4.14	3.9	2.073	0.2	0.23	0.666	0.05	0.27	0.09	0.012	-		
MINIMUM	1.7	1.1	3.70	BDL	0.576	0.1	BDL	0.147	BDL	BDL	0.02	0.001	-		
MAXIMUM	39.9	39.4	5.00	9.3	4.829	0.6	0.56	1.806	0.13	0.63	0.23	0.026	-		
P.W. MEAN			4.10	3.6	2.029	0.2	0.15	0.411	0.03	0.03	0.04	0.008			

PRECIP TYPE

- 1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN
- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

DAY [] - DENOTES A MULTIPLE DAY STANDARD PRECIPITATION GAUGE SAMPLE OF DURATION SHOWN IN BRACKETS

ALGOMA

AUGUST 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁻	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	bd1	bd1	bd1	bd1	bd1	bd1
2	0.47	bd1	bd1	bd1	bd1	0.8
3	0.64	bd1	bd1	bd1	bd1	1.8
4	0.93	bd1	bd1	bd1	bd1	bd1
5	1.05	bd1	bd1	bd1	0.39	bd1
6	2.19	0.42	bd1	bd1	0.63	bd1
7	1.34	bd1	bd1	bd1	0.30	bd1
8	2.32	0.66	bd1	bd1	bd1	bd1
9	bd1	bd1	bd1	bd1	bd1	bd1
10	bd1	bd1	bd1	bd1	bd1	bd1
11	0.49	bd1	bd1	bd1	bd1	bd1
12	bd1	bd1	bd1	bd1	bd1	bd1
13	2.70	0.54	bd1	bd1	bd1	bd1
14	12.58	1.30	bd1	0.17	0.59	1.2
15	15.87	1.54	bd1	bd1	13.45	bd1
16	1.00	0.30	bd1	bd1	0.98	bd1
17	bd1	bd1	bd1	bd1	bd1	bd1
18	1.45	0.42	bd1	bd1	0.31	bd1
19	1.26	bd1	bd1	bd1	bd1	bd1
20	bd1	bd1	bd1	bd1	bd1	bd1
21	0.62	bd1	bd1	bd1	bd1	bd1
22	0.46	bd1	bd1	bd1	bd1	bd1
23	bd1	bd1	bd1	bd1	bd1	bd1
24	0.80	bd1	bd1	bd1	bd1	bd1
25	0.64	bd1	bd1	bd1	bd1	bd1
26	bd1	bd1	bd1	bd1	bd1	1.7
27	bd1	bd1	bd1	bd1	bd1	bd1
28	bd1	bd1	bd1	bd1	bd1	bd1
29	1.07	0.38	bd1	bd1	0.33	1.2
30	0.85	bd1	bd1	bd1	bd1	1.3
31	bd1	bd1	bd1	bd1	bd1	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	-	-	-	-	-
A. MEAN	1.57	-	-	-	-	-
S.D.	3.48	-	-	-	-	-
MIN.	bd1	-	-	-	-	-
MAX.	15.87	-	-	-	-	-

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO4=	NO3-	Cl-	Ca++	NH4+	Mg++	Na+	K+	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)											+VE/-VE		
3 [7]	15.4	13.9	4.80	BDL	0.753	BDL	0.05	0.258	0.01	0.04	0.06	0.009	-		1
10 [9]	6.0	5.7	4.80	2.6	1.506	0.1	0.30	0.975	0.09	BDL	0.05	0.012	-		1
19 [5]	24.0	23.5	5.10	0.6	0.222	0.1	BDL	0.076	BDL	0.10	0.02	0.001	-		1
24 [2]	3.2	2.5	6.20	1.1	0.354	0.4	0.11	0.219	0.02	0.29	0.29	-	0.82		1
26	16.8	12.1	6.10	BDL	0.177	0.6	BDL	0.090	BDL	0.42	0.21	0.001	-		1
27	6.0	5.2	6.30	0.6	0.089	0.9	0.06	0.081	0.01	0.63	0.29	0.009	0.86		1
28 [2]	6.6	5.7	4.50	2.5	1.639	0.6	0.11	0.312	0.02	0.38	0.34	0.003	0.86		1
30	25.0	25.0	5.00	0.5	0.310	BDL	BDL	0.041	BDL	BDL	BDL	0.001	-		1
TOTAL PRECIP	103.0	93.6													
NO. OBS.	8	8	8	8	8	8	8	8	8	8	8	7	-		
A. MEAN	12.9	11.7	4.98	1.0	0.631	0.3	0.08	0.256	0.02	0.23	0.16	0.005	-		
STD. DEV.	8.6	8.6	4.97	1.0	0.615	0.3	0.10	0.307	0.03	0.23	0.14	0.005	-		
MINIMUM	3.2	2.5	4.50	BDL	0.089	BDL	BDL	0.041	BDL	BDL	BDL	0.001	-		
MAXIMUM	25.0	25.0	6.30	2.6	1.639	0.9	0.30	0.975	0.09	0.63	0.34	0.012	-		
P.W. MEAN			5.00	0.7	0.479	0.2	0.04	0.169	0.01	0.15	0.09	0.004			

PRECIP TYPE

- 1 - RAIN
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DAY[]-DENOTES A MULTIPLE DAY STANDARD PRECIPITATION GAUGE SAMPLE OF DURATION SHOWN IN BRACKETS

ALGOMA

SEPTEMBER 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	0.53	bd1	bd1	bd1	bd1	0.7
2	bd1	bd1	bd1	bd1	bd1	bd1
3	bd1	bd1	bd1	bd1	bd1	bd1
4	1.02	0.44	bd1	0.14	0.29	1.2
5	1.25	0.52	bd1	bd1	0.42	bd1
6	bd1	bd1	0.69	0.39	bd1	bd1
7	0.65	0.45	bd1	bd1	-	bd1
8	10.73	1.63	bd1	bd1	1.30	2.2
9	38.39	2.58	bd1	bd1	4.27	3.8
10	31.06	1.43	bd1	0.13	5.31	11.0
11	15.98	2.03	0.23	0.19	3.72	3.4
12	13.74	2.00	0.18	0.12	3.14	4.0
13	6.11	0.93	0.12	bd1	1.64	2.9
14	bd1	bd1	0.31	0.19	bd1	bd1
15	bd1	bd1	0.19	bd1	bd1	bd1
16	0.81	bd1	bd1	bd1	bd1	bd1
17	0.74	bd1	bd1	bd1	bd1	bd1
18	bd1	bd1	bd1	bd1	bd1	bd1
19	0.69	bd1	bd1	bd1	bd1	bd1
20	bd1	bd1	bd1	bd1	bd1	bd1
21	1.93	bd1	bd1	bd1	bd1	bd1
22	3.11	bd1	bd1	bd1	0.51	bd1
23	2.96	1.25	bd1	bd1	0.56	2.1
24	1.45	0.59	bd1	bd1	0.32	bd1
25	1.48	0.43	bd1	bd1	bd1	4.3
26	15.17	2.19	0.18	bd1	1.38	1.8
27	8.94	1.81	-	bd1	-	1.1
28	9.39	1.52	0.12	0.10	1.13	1.0
29	16.46	2.65	bd1	bd1	3.68	6.9
30	5.93	1.46	0.12	bd1	1.52	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	30	-	-	28	-
A. MEAN	6.28	0.80	-	-	1.04	-
S.D.	9.44	0.90	-	-	1.54	-
MIN.	bd1	bd1	-	-	bd1	-
MAX.	38.39	2.65	-	-	5.31	-

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO PRECIP	
	STD (mm)	COLL (mm)											+VE/-VE	TYPE
1	32.0	31.7	5.40	BDL	0.177	0.1	BDL	0.044	BDL	0.04	0.03	0.001	-	1
2 [2]	16.0	15.0	5.30	0.4	BDL	0.1	BDL	BDL	BDL	0.02	BDL	0.002	-	1
10	2.0	1.9	3.80	8.8	5.449	0.3	1.24	1.589	0.20	0.07	0.18	0.019	1.19	1
12	-	8.8	4.10	5.6	2.082	0.3	0.32	0.823	0.06	0.19	0.08	0.005	0.99	1
13 [2]	36.2	25.5	4.50	1.9	0.399	0.1	0.06	0.130	BDL	0.06	BDL	0.002	-	1
14	-	1.6	4.80	0.6	0.354	0.1	0.09	0.214	0.02	0.09	0.06	0.005	1.82	1
15 [2]	8.4	6.3	4.90	0.6	0.266	0.1	BDL	0.097	0.01	0.04	BDL	0.003	-	1
16	-	1.0	4.10	2.6	-	0.2	0.14	-	0.03	-	-	0.009	-	1
17 [2]	13.5	11.5	4.80	0.7	0.443	0.1	BDL	0.151	BDL	0.04	BDL	0.003	-	1
19	-	12.3	4.90	0.8	0.354	0.1	BDL	0.442	BDL	0.09	0.03	0.002	-	1
20 [2]	14.6	2.0	4.40	0.8	BDL	0.1	BDL	0.227	BDL	0.05	BDL	0.005	-	1
23	-	0.3	-	2.5	-	1.6	BDL	-	-	-	-	-	-	1
24 [2]	12.2	11.7	4.10	4.0	2.392	0.1	BDL	0.792	BDL	0.09	BDL	0.003	-	1
26	-	0.4	4.10	2.8	-	0.9	-	-	-	-	-	-	-	1
27 [2]	0.5	0.3	-	1.3	-	1.2	-	-	-	-	-	-	-	1
29	-	5.2	4.30	3.6	1.683	0.5	0.36	0.372	0.05	0.08	0.05	0.001	0.84	1
30	-	3.0	4.30	4.4	1.772	0.4	0.40	0.778	0.06	0.17	0.03	-	0.95	1

TOTAL PRECIP 135.4 138.5

NO. OBS.	-	17	15	17	13	17	15	13	14	13	13	13	-
A. MEAN	-	8.1	4.32	2.4	1.182	0.4	0.17	0.435	0.03	0.08	0.04	0.005	-
STD. DEV.	-	9.1	4.38	2.3	1.534	0.5	0.33	0.452	0.05	0.05	0.05	0.005	-
MINIMUM	-	0.3	3.80	BDL	BDL	0.1	BDL	BDL	BDL	0.02	BDL	0.001	-
MAXIMUM	-	31.7	5.40	8.8	5.449	1.6	1.24	1.589	0.20	0.19	0.18	0.019	-
P.W. MEAN	-	-	4.54	1.6	0.719	0.1	0.07	0.272	0.01	0.07	0.02	0.002	-

PRECIP TYPE

1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN

- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

DAY[]-DENOTES A MULTIPLE DAY STANDARD PRECIPITATION GAUGE SAMPLE OF DURATION SHOWN IN BRACKETS

ALGOMA

OCTOBER 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	0.80	bd1	0.24	bd1	bd1	bd1
2	3.38	1.39	-	0.19	-	0.6
3	0.92	0.45	bd1	bd1	bd1	0.7
4	1.57	0.81	bd1	bd1	0.34	0.8
5	5.04	3.33	0.13	bd1	0.81	3.9
6	6.78	0.86	bd1	bd1	1.52	2.7
7	1.45	bd1	bd1	bd1	0.49	bd1
8	bd1	bd1	bd1	bd1	bd1	bd1
9	bd1	bd1	bd1	bd1	bd1	1.3
10	2.87	0.72	bd1	bd1	0.79	bd1
11	2.14	1.12	bd1	bd1	0.64	bd1
12	0.72	bd1	bd1	bd1	bd1	bd1
13	1.26	bd1	bd1	bd1	bd1	bd1
14	0.93	bd1	bd1	bd1	bd1	0.8
15	bd1	bd1	bd1	bd1	bd1	bd1
16	bd1	bd1	bd1	bd1	bd1	bd1
17	0.60	0.55	bd1	bd1	0.28	bd1
18	3.51	5.25	0.13	bd1	1.74	9.7
19	4.23	3.48	bd1	bd1	1.67	2.7
20	bd1	bd1	bd1	bd1	bd1	bd1
21	0.94	bd1	bd1	bd1	bd1	bd1
22	1.26	bd1	bd1	bd1	bd1	bd1
23	3.07	4.31	bd1	bd1	1.05	0.7
24	1.46	3.50	bd1	bd1	1.23	3.3
25	4.81	4.22	bd1	bd1	2.05	2.4
26	5.26	4.45	bd1	bd1	2.22	4.1
27	6.37	7.43	0.12	bd1	3.56	16.0
28	7.77	4.45	0.12	bd1	3.07	17.4
29	2.92	1.35	bd1	bd1	0.87	1.0
30	0.97	0.65	bd1	bd1	bd1	bd1
31	0.51	0.34	bd1	bd1	bd1	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	-	30	31
A. MEAN	2.31	1.57	-	-	0.74	2.2
S.D.	2.20	2.05	-	-	0.99	4.4
MIN.	bd1	bd1	-	-	bd1	bd1
MAX.	7.77	7.43	-	-	3.56	17.4

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

													ION BAL.	
DAY	AMOUNT		PH	SO4=	NO3-	Cl-	Ca++	NH4+	Mg++	Na+	K+	TOT P	RATIO +VE/-VE	PRECIP TYPE
	STD (mm)	COLL (mm)												
1 {3}	10.1	BDL	-	-	-	-	-	-	-	-	-	-	-	1
2	-	16.0	3.90	8.9	4.341	0.4	0.37	1.478	0.07	0.10	0.07	0.001	0.90	1
4 {3}	16.2	0.3	-	0.9	-	0.6	-	-	-	-	-	-	-	1
5	-	15.8	4.20	4.4	1.683	0.3	0.20	0.521	0.03	0.03	0.03	0.002	0.85	1
6 {2}	44.0	29.0	4.30	3.8	1.152	0.3	0.07	0.495	0.02	0.15	0.02	0.005	0.85	1
7	7.2	6.2	4.70	1.1	0.620	BDL	BDL	0.168	BDL	BDL	BDL	0.005	-	1
10	9.7	8.8	4.10	4.3	3.057	0.1	0.16	0.694	0.03	0.12	0.07	0.008	0.95	1
11	3.7	3.4	4.40	2.2	1.772	BDL	0.09	0.444	0.03	BDL	0.03	0.025	-	1
12	-	8.5	4.80	0.6	0.443	BDL	BDL	0.008	BDL	0.03	BDL	0.002	-	1
13 {2}	19.0	4.2	4.50	1.7	0.487	0.1	BDL	BDL	BDL	0.13	BDL	0.015	-	1
14	4.3	8.8	4.80	0.9	0.310	BDL	BDL	0.135	BDL	0.05	BDL	0.004	-	1
16	-	BDL	-	-	-	-	-	-	-	-	-	-	-	3
17	-	2.0	4.00	1.5	1.240	BDL	0.05	0.218	0.01	0.05	0.03	0.009	-	1
18 {3}	3.1	0.6	-	3.5	3.766	0.4	-	BDL	-	-	-	-	-	1
19	72.2	48.5	4.60	1.8	1.196	BDL	0.09	0.328	0.02	0.08	BDL	0.003	-	1
20	-	26.4	4.70	1.3	0.443	BDL	BDL	0.155	BDL	0.09	BDL	0.002	-	1
21	-	2.9	4.60	1.4	0.576	BDL	BDL	0.097	0.01	0.17	0.03	-	-	1
22 {3}	2.1	BDL	-	-	-	-	-	-	-	-	-	-	-	1
28	-	5.9	4.50	3.2	2.171	0.1	0.57	0.266	0.12	0.10	0.47	0.011	0.97	1
29 {2}	7.0	BDL	-	-	-	-	-	-	-	-	-	-	-	1

TOTAL PRECIP 198.6 187.3

NO. OBS.	-	20	14	16	15	16	14	15	14	14	14	13	-	-	-
A. MEAN	-	9.4	4.34	2.6	1.550	0.1	0.11	0.334	0.02	0.08	0.05	0.007	-	-	-
STD. DEV.	-	12.5	4.47	2.1	1.274	0.2	0.17	0.379	0.03	0.05	0.12	0.007	-	-	-
MINIMUM	-	BDL	3.90	0.6	0.310	BDL	BDL	BDL	BDL	BDL	BDL	0.001	-	-	-
MAXIMUM	-	48.5	4.80	8.9	4.341	0.6	0.57	1.478	0.12	0.17	0.47	0.025	-	-	-
P.W. MEAN	-	-	4.37	2.9	1.410	0.1	0.11	0.419	0.02	0.09	0.03	0.004	-	-	-

PRECIP TYPE

- 1 - RAIN
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- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

DAY[]-DENOTES A MULTIPLE DAY STANDARD PRECIPITATION GAUGE SAMPLE OF DURATION SHOWN IN BRACKETS

ALGOMA

NOVEMBER 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	0.46	bd1	bd1	bd1	bd1	bd1
2	1.01	bd1	bd1	bd1	bd1	bd1
3	1.64	bd1	bd1	bd1	bd1	bd1
4	0.92	bd1	bd1	bd1	bd1	bd1
5	bd1	bd1	bd1	bd1	bd1	0.7
6	1.20	1.16	bd1	bd1	0.47	bd1
7	3.42	6.12	bd1	bd1	2.14	3.7
8	1.18	0.38	bd1	bd1	bd1	bd1
9	0.66	bd1	bd1	bd1	bd1	bd1
10	0.99	0.90	bd1	bd1	0.31	0.6
11	1.40	bd1	bd1	bd1	0.34	bd1
12	0.47	bd1	0.25	0.12	bd1	bd1
13	bd1	0.34	bd1	bd1	bd1	bd1
14	0.62	0.51	bd1	bd1	bd1	bd1
15	0.96	1.87	bd1	bd1	0.65	2.5
16	2.17	4.84	bd1	bd1	1.65	4.8
17	3.53	7.03	bd1	bd1	2.34	3.7
18	3.41	3.87	bd1	bd1	1.76	9.1
19	6.05	4.57	bd1	bd1	2.51	10.8
20	3.28	1.18	bd1	bd1	0.64	bd1
21	1.32	bd1	bd1	bd1	0.48	bd1
22	0.59	bd1	bd1	bd1	0.26	bd1
23	0.85	bd1	bd1	bd1	0.34	bd1
24	1.05	0.51	bd1	bd1	0.44	1.5
25	0.54	bd1	bd1	bd1	0.41	bd1
26	0.66	bd1	bd1	bd1	bd1	1.0
27	0.82	bd1	bd1	bd1	bd1	bd1
28	1.30	1.25	bd1	bd1	0.28	7.4
29	1.02	0.42	bd1	bd1	bd1	2.6
30	2.69	1.45	bd1	bd1	0.73	1.3

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	30	-	-	30	-
A. MEAN	1.47	1.21	-	-	0.53	-
S.D.	1.32	1.98	-	-	0.76	-
MIN.	bd1	bd1	-	-	bd1	-
MAX.	6.05	7.03	-	-	2.51	-

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO +VE/-VE	PRECIP TYPE
	STD (mm)	COLL (mm)												
2	-	9.2	4.70	1.3	0.222	BDL	BDL	0.045	BDL	0.04	0.03	0.004	-	1
3	-	7.6	4.70	1.0	0.665	BDL	BDL	0.170	BDL	0.03	0.02	0.008	-	1
4	-	5.9	4.70	1.0	0.620	BDL	0.06	0.107	0.01	BDL	BDL	0.010	-	2
5 [4]	40.5	9.6	5.00	0.5	0.266	BDL	BDL	0.030	BDL	BDL	BDL	0.009	-	2
6	4.3	2.3	5.00	0.7	0.226	0.1	0.10	0.054	0.02	0.03	BDL	0.011	-	4
10	-	13.5	4.10	3.6	5.360	0.3	0.14	1.044	0.03	0.14	0.09	0.003	0.91	4
11 [2]	43.0	31.9	4.70	1.1	0.536	0.1	BDL	0.133	BDL	0.07	BDL	0.004	-	4
13	-	0.7	6.40	0.7	-	1.5	-	-	-	-	-	-	-	4
14 [2]	7.2	3.9	4.80	0.3	1.387	0.1	0.10	0.044	0.02	0.07	BDL	0.012	-	2
19	20.0	19.5	4.10	2.7	2.640	0.1	0.06	0.390	0.01	0.06	0.03	0.006	1.06	1
20	5.2	4.9	4.30	3.1	1.878	0.1	0.24	0.445	0.02	0.06	0.06	0.009	0.94	1
22	-	BDL	-	-	-	-	-	-	-	-	-	-	-	4
23	-	BDL	-	-	-	-	-	-	-	-	-	-	-	4
24	-	2.6	4.80	2.1	2.326	0.3	0.27	0.619	0.08	0.23	0.09	0.009	0.91	2
26 [5]	8.0	2.3	5.60	0.8	0.315	0.6	0.13	0.137	0.03	0.41	0.12	0.022	0.97	2
30	-	0.7	-	5.6	8.240	2.1	-	1.316	-	-	-	-	-	1

TOTAL PRECIP 128.2 114.6

NO. OBS.	-	16	13	14	13	14	12	13	12	12	12	12	-
A. MEAN	-	7.2	4.58	1.7	1.899	0.4	0.09	0.349	0.02	0.09	0.04	0.009	-
STD. DEV.	-	8.5	4.58	1.5	2.398	0.6	0.09	0.414	0.02	0.12	0.04	0.005	-
MINIMUM	-	BDL	4.10	0.3	0.222	BDL	BDL	0.030	BDL	BDL	BDL	0.003	-
MAXIMUM	-	31.9	6.40	5.6	8.240	2.1	0.27	1.316	0.08	0.41	0.12	0.022	-
P.W. MEAN	-	-	4.43	1.7	1.597	0.1	0.05	0.298	0.01	0.07	0.03	0.006	-

PRECIP TYPE

1 - RAIN
2 - SNOW
3 - MIXED
4 - UNCERTAIN

- - MISSING DATA
BDL - BELOW DETECTION LIMIT

DAY[]-DENOTES A MULTIPLE DAY STANDARD PRECIPITATION GAUGE SAMPLE OF DURATION SHOWN IN BRACKETS

-3 -1

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PRECIP TYPE
1 - RAIN          - - MISSING DATA
2 - SNOW          BDL - BELOW DETECTION LIMIT
3 - MIXED
4 - UNCERTAIN
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DAY[]-DENOTES A MULTIPLE DAY STANDARD PRECIPITATION GAUGE SAMPLE OF DURATION SHOWN IN BRACKETS

MONTHLY SUMMARIES OF MEASURED CONCENTRATIONS IN AIR AND PRECIPITATION AT CHALK RIVER

CHALK RIVER

JANUARY 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ²⁻	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	1.27	0.90	bd1	0.18	0.43	6.9
2	1.45	0.59	0.12	0.26	0.35	18.8
3	1.97	2.03	bd1	0.18	1.11	14.9
4	0.90	0.59	0.18	0.09	0.38	10.9
5	4.23	0.70	0.98	0.57	0.38	12.5
6	2.09	2.40	0.20	0.29	0.85	10.4
7	0.99	0.31	0.10	0.17	bd1	7.4
8	1.05	0.44	bd1	0.14	0.27	18.8
9	0.72	bd1	bd1	0.06	bd1	29.7
10	0.72	0.25	0.21	0.16	bd1	6.7
11	0.37	bd1	0.26	0.16	bd1	17.8
12	0.44	bd1	0.12	0.13	bd1	15.5
13	-	-	-	0.16	bd1	11.3
14	0.95	0.62	bd1	0.18	bd1	8.7
15	1.75	0.63	bd1	0.16	0.33	70.0
16	1.65	1.01	0.22	0.18	0.45	13.7
17	0.26	bd1	bd1	0.05	bd1	13.9
18	0.84	0.46	bd1	0.06	bd1	20.5
19	1.90	1.68	0.16	0.23	0.54	24.1
20	1.07	0.79	0.11	0.20	0.36	5.5
21	0.77	0.24	0.13	0.11	bd1	1.7
22	1.64	0.66	bd1	0.19	0.36	20.4
23	2.10	1.15	0.11	0.16	0.70	18.4
24	1.08	0.71	0.16	0.16	0.36	4.5
25	1.14	0.52	0.14	0.07	0.28	5.3
26	0.30	bd1	bd1	bd1	bd1	4.5
27	1.32	0.95	0.16	0.10	0.36	13.2
28	1.58	1.19	0.12	0.10	0.48	14.6
29	2.56	0.75	0.25	0.18	0.42	40.9
30	1.74	1.44	0.13	0.09	0.60	15.2
31	0.59	bd1	bd1	bd1	bd1	18.1

bd1 - BELOW DETECTION LIMIT

	30	30	30	31	31	31
NO. OBS.	30	30	30	31	31	31
A. MEAN	1.31	0.70	0.13	0.15	0.29	16.0
S.D.	0.81	0.60	0.18	0.10	0.29	12.9
MIN.	0.26	bd1	bd1	bd1	bd1	1.7
MAX.	4.23	2.40	0.98	0.57	1.11	70.0

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ²⁻	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)											+VE/-VE		
2	1.2	0.5	4.50	7.1	-	6.2	-	-	-	6.61	0.49	-	-	-	2
3	6.8	6.5	4.50	1.2	2.211	0.5	0.22	0.218	0.03	0.54	0.14	0.005	1.13	-	2
4	7.0	6.2	4.60	2.6	1.830	0.5	0.64	0.286	0.07	0.34	0.18	0.028	1.00	-	3
8	2.4	1.3	4.60	1.2	4.341	1.7	-	0.195	-	2.96	0.13	-	-	-	2
10	5.2	3.6	5.30	BDL	0.611	0.3	0.28	0.030	0.05	0.22	0.05	0.014	-	-	2
12	2.8	BDL	-	-	-	-	-	-	-	-	-	-	-	-	2
13	1.3	1.3	4.50	2.2	-	0.6	0.76	-	0.13	0.35	0.10	0.011	-	-	2
16	3.0	1.3	-	-	-	-	-	-	-	-	-	-	-	-	2
22	9.0	-	4.80	0.8	0.979	0.7	0.19	0.015	0.02	0.12	0.03	0.006	0.65	-	2
23	8.0	-	-	-	-	-	-	-	-	-	-	-	-	-	2
24	0.3	-	4.40	1.9	2.698	0.6	0.51	0.228	0.05	0.13	0.06	0.019	0.89	-	2
28	3.4	-	4.30	1.7	7.664	1.1	1.44	0.393	0.14	0.45	0.10	0.025	0.94	-	2
29	4.5	-	4.60	1.3	2.286	1.1	0.32	0.089	0.04	0.48	0.06	0.008	0.76	-	2
31	15.0	-	4.80	0.8	0.895	0.5	0.08	0.041	0.01	0.11	0.03	0.008	0.61	-	2
TOTAL PRECIP 69.9 20.7															
NO. OBS. 14 - 11 11 - 11 - - 11 11 - -															
A. MEAN 5.0 - 4.57 1.9 - 1.2 - - 1.12 0.12 - -															
STD. DEV. 3.9 - 4.91 1.9 - 1.7 - - 1.99 0.13 - -															
MINIMUM 0.3 - 4.30 BDL - 0.3 - - 0.11 0.03 - -															
MAXIMUM 15.0 - 5.30 7.1 - 6.2 - - 6.61 0.49 - -															
P.W. MEAN - 4.66 1.3 - 0.8 - - 0.52 0.09 - -															

PRECIP TYPE

- 1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN
- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

CHALK RIVER

FEBRUARY 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	SO ₂
1	2.85	0.37	bd1	0.10	0.26	38.4
2	2.28	1.80	bd1	0.16	0.55	35.0
3	0.94	bd1	bd1	0.06	bd1	39.3
4	1.86	1.09	bd1	0.10	0.48	15.2
5	2.81	0.79	bd1	0.28	0.50	21.8
6	2.13	0.50	0.14	0.18	0.35	7.0
7	3.09	1.74	bd1	0.08	0.84	22.1
8	0.60	0.38	bd1	bd1	bd1	5.4
9	1.07	0.86	0.12	0.25	bd1	14.1
10	0.39	0.28	bd1	bd1	bd1	8.2
11	0.66	0.59	bd1	bd1	bd1	21.1
12	0.42	0.26	bd1	bd1	bd1	23.9
13	2.19	0.48	bd1	0.09	0.33	44.4
14	2.13	1.08	0.21	0.18	0.52	20.9
15	6.40	2.04	0.14	0.09	1.32	43.8
16	1.05	0.28	bd1	bd1	0.26	1.7
17	2.75	0.80	0.15	0.25	0.37	4.6
18	1.28	1.59	0.10	0.20	0.46	21.5
19	4.08	2.66	bd1	0.17	1.47	25.0
20	5.29	0.77	bd1	0.09	0.58	48.9
21	2.64	0.49	bd1	0.14	0.27	2.2
22	1.66	0.48	bd1	0.06	0.26	16.4
23	1.19	0.46	0.10	0.13	bd1	11.4
24	bd1	bd1	bd1	bd1	bd1	2.2
25	0.48	bd1	bd1	bd1	bd1	2.6
26	1.40	0.39	bd1	0.05	0.31	29.1
27	0.66	bd1	bd1	bd1	bd1	3.5
28	1.49	0.39	bd1	0.11	0.36	5.1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	28	28	-	28	28	28
A. MEAN	1.92	0.73	-	0.10	0.34	19.1
S.D.	1.49	0.67	-	0.09	0.38	14.6
MIN.	bd1	bd1	-	bd1	bd1	1.7
MAX.	6.40	2.66	-	0.28	1.47	48.9

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO +VE/-VE	PRECIP TYPE
	STD (mm)	COLL (mm)												
3	11.5	-	-	-	-	-	-	-	-	-	-	-	-	2
5	3.7	-	4.70	1.2	1.059	1.1	0.16	0.129	0.01	0.19	0.06	0.010	0.62	2
7	BDL	-	-	-	-	-	-	-	-	-	-	-	-	2
9	0.2	-	-	-	-	-	-	-	-	-	-	-	-	2
18	7.0	6.5	3.90	1.5	5.405	0.2	0.26	0.085	0.04	0.17	0.05	0.003	1.25	2
19 (2)	3.4	3.3	4.30	1.3	2.968	0.4	0.34	0.206	0.04	0.33	0.09	-	-	2
22	4.8	3.9	4.50	1.4	2.082	0.1	0.13	0.559	0.01	0.08	0.04	0.002	1.15	2
26	1.2	1.0	4.00	3.9	-	0.9	-	-	-	-	-	-	-	2
TOTAL PRECIP	28.4	11.4												
NO. OBS.	7	-	-	-	-	-	-	-	-	-	-	-	-	
A. MEAN	4.1	-	-	-	-	-	-	-	-	-	-	-	-	
STD. DEV.	4.2	-	-	-	-	-	-	-	-	-	-	-	-	
MINIMUM	BDL	-	-	-	-	-	-	-	-	-	-	-	-	
MAXIMUM	11.5	-	-	-	-	-	-	-	-	-	-	-	-	
P.W. MEAN		-	-	-	-	-	-	-	-	-	-	-	-	

PRECIP TYPE

- 1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN
- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

DAY () - DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

CHALK RIVER

MARCH 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	2.93	3.05	bd1	0.22	0.90	27.6
2	1.62	0.47	bd1	0.10	0.34	23.2
3	5.96	0.26	bd1	0.14	0.42	105.8
4	2.90	1.08	bd1	0.14	0.47	20.3
5	1.37	0.35	bd1	bd1	0.29	9.1
6	3.33	1.90	bd1	0.09	0.58	9.2
7	4.31	1.99	0.10	0.14	0.71	48.6
8	2.12	0.63	0.18	0.20	bd1	30.8
9	1.87	0.73	bd1	0.12	bd1	23.8
10	3.50	2.02	bd1	0.09	0.73	27.8
11	1.24	0.69	bd1	0.05	0.33	19.9
12	1.31	0.51	bd1	bd1	bd1	14.9
13	2.05	1.08	bd1	bd1	0.64	3.1
14	0.64	0.31	bd1	bd1	bd1	4.3
15	0.72	0.31	bd1	bd1	bd1	46.7
16	1.00	0.82	bd1	0.07	bd1	9.1
17	0.41	bd1	bd1	bd1	bd1	2.3
18	1.53	0.41	bd1	bd1	bd1	3.2
19	1.68	bd1	bd1	bd1	bd1	17.2
20	1.14	bd1	bd1	bd1	bd1	30.7
21	1.25	bd1	bd1	bd1	bd1	5.5
22	1.40	bd1	bd1	bd1	bd1	13.3
23	2.05	0.71	bd1	0.08	0.43	29.6
24	5.60	3.23	0.16	0.08	1.42	38.3
25	4.25	0.50	8.32	-	-	bd1
26	1.91	bd1	bd1	0.12	bd1	25.4
27	1.06	bd1	bd1	bd1	bd1	3.9
28	1.46	0.61	bd1	bd1	0.39	6.6
29	4.10	3.35	bd1	0.07	1.49	30.7
30	3.82	5.40	0.20	0.19	1.69	24.8
31	bd1	bd1	bd1	bd1	bd1	5.5

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	30	30	31
A. MEAN	2.21	0.98	-	0.06	0.36	21.3
S.D.	1.49	1.27	-	0.07	0.49	20.5
MIN.	bd1	bd1	-	bd1	bd1	bd1
MAX.	5.96	5.40	-	0.22	1.69	105.8

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)											+VE/-VE		
1	7.2	4.9	4.10	0.9	4.873	0.4	0.35	0.181	0.16	0.19	0.08	0.004	1.20		2
4	9.0	-	4.30	0.2	2.658	BDL	0.13	0.063	0.01	0.07	0.03	0.003	-		2
6	3.4	2.8	4.20	0.8	4.519	0.5	0.32	0.342	0.04	0.39	0.12	-	1.16		2
10	4.8	2.0	3.80	4.2	8.461	0.8	0.59	0.704	0.22	0.29	0.10	-	1.06		2
11	0.8	1.3	3.80	10.1	-	1.6	1.10	-	0.12	1.01	0.43	-	-		4
13	8.2	7.2	3.90	5.0	3.633	0.2	0.25	0.735	0.05	0.15	0.08	0.007	1.15		1
18	0.8	1.0	4.10	3.6	6.911	0.9	0.81	0.743	0.12	0.56	0.20	-	0.95		4
21	4.4	4.6	4.30	2.5	1.506	0.3	0.35	0.139	0.03	1.64	0.61	0.012	1.94		2
25	4.3	5.2	7.40	6.1	1.994	0.8	1.67	0.313	2.38	1.43	0.61	0.025	1.19		2
26	2.0	1.0	-	5.6	-	4.5	-	-	-	-	-	-	-		2
TOTAL PRECIP	44.9	30.0													
NO. OBS.	10	9	9	10	8	10	9	8	9	9	9	-	-		
A. MEAN	4.5	3.3	4.07	3.9	4.319	1.0	0.62	0.402	0.35	0.64	0.25	-	-		
STD. DEV.	2.9	2.2	4.27	3.0	2.413	1.3	0.50	0.284	0.77	0.58	0.23	-	-		
MINIMUM	0.8	1.0	3.80	0.2	1.506	BDL	0.13	0.063	0.01	0.07	0.03	-	-		
MAXIMUM	9.0	7.2	7.40	10.1	8.461	4.5	1.67	0.743	2.38	1.64	0.61	-	-		
P.W. MEAN			4.10	2.9	3.931	0.6	0.46	0.356	0.31	0.48	0.19	-	-		

PRECIP TYPE

1 - RAIN
2 - SNOW
3 - MIXED
4 - UNCERTAIN

- - MISSING DATA
BDL - BELOW DETECTION LIMIT

CHALK RIVER

APRIL 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO ₄ ²⁻	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	SO ₂
1	1.47	0.42	bd1	0.07	bd1	6.0
2	0.98	0.69	bd1	bd1	bd1	1.9
3	1.83	1.69	bd1	bd1	0.69	4.3
4	1.50	0.40	bd1	0.09	bd1	bd1
5	bd1	0.37	bd1	bd1	bd1	bd1
6	1.19	bd1	bd1	bd1	bd1	bd1
7	0.50	bd1	bd1	bd1	bd1	9.6
8	1.13	bd1	bd1	bd1	0.37	8.2
9	0.81	bd1	bd1	bd1	bd1	9.1
10	3.30	0.68	bd1	bd1	0.94	3.9
11	6.73	1.26	bd1	bd1	1.83	8.3
12	3.33	0.46	bd1	bd1	0.77	16.1
13	3.53	0.80	bd1	bd1	0.81	2.9
14	0.80	bd1	bd1	bd1	bd1	20.3
15	0.97	0.44	bd1	bd1	bd1	7.7
16	7.38	3.65	0.15	0.13	2.20	22.6
17	3.25	1.19	bd1	bd1	0.97	4.3
18	1.28	bd1	bd1	bd1	bd1	7.3
19	1.08	0.66	bd1	bd1	0.35	6.4
20	2.08	0.91	bd1	bd1	0.70	3.9
21	0.58	bd1	bd1	bd1	bd1	4.2
22	1.00	bd1	bd1	bd1	0.22	3.0
23	1.01	0.26	bd1	bd1	0.34	4.7
24	2.40	1.60	bd1	bd1	1.00	6.8
25	7.15	2.89	bd1	bd1	2.09	33.9
26	0.52	0.30	bd1	bd1	0.18	3.7
27	1.57	bd1	bd1	bd1	0.31	bd1
28	1.35	0.23	0.24	bd1	0.37	bd1
29	2.16	0.47	bd1	bd1	0.62	4.0
30	1.75	0.33	bd1	bd1	0.54	5.6

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	30	-	-	30	30
A. MEAN	2.09	0.66	-	-	0.51	7.0
S.D.	1.92	0.86	-	-	0.62	7.5
MIN.	bd1	bd1	-	-	bd1	bd1
MAX.	7.38	3.65	-	-	2.20	33.9

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO4=	NO3-	Cl-	Ca++	NH4+	Mg++	Na+	K+	TOT P	ION BAL.	
	STD (mm)	COLL (mm)											RATIO +VE/-VE	PRECIP TYPE
3	9.4	8.8	4.50	3.0	2.481	0.2	0.69	0.401	0.09	0.40	0.24	0.011	1.10	4
4	1.2	0.3	-	7.7	-	1.3	-	-	-	-	-	-	-	2
10	1.6	1.2	4.60	6.0	5.670	0.5	0.87	1.007	0.09	-	-	-	-	2
12	9.2	9.0	4.10	4.4	4.430	0.4	0.72	0.848	0.11	0.38	0.14	0.012	1.10	4
13	5.3	4.9	4.20	8.3	4.253	0.4	0.58	1.291	0.08	1.69	0.75	0.054	1.04	1
17	2.7	2.9	4.20	8.1	5.405	1.3	2.18	0.841	0.03	1.71	0.82	0.034	1.08	4
20	9.0	8.1	4.10	4.4	0.310	0.4	1.09	0.672	BDL	0.28	0.17	0.005	-	1
TOTAL PRECIP	38.4	35.2												
NO. OBS.	7	7	6	7	6	7	6	6	6	5	5	5	-	
A. MEAN	5.5	5.0	4.24	6.0	3.758	0.6	1.02	0.843	0.07	0.89	0.42	0.023	-	
STD. DEV.	3.7	3.7	4.63	2.1	2.029	0.5	0.59	0.301	0.04	0.74	0.33	0.021	-	
MINIMUM	1.2	0.3	4.10	3.0	0.310	0.2	0.58	0.401	BDL	0.28	0.14	0.005	-	
MAXIMUM	9.4	9.0	4.60	8.3	5.670	1.3	2.18	1.291	0.11	1.71	0.82	0.054	-	
P.W. MEAN			4.21	5.0	3.040	0.4	0.89	0.762	0.07	0.66	0.32	0.018		

PRECIP TYPE

1 - RAIN

2 - SNOW

3 - MIXED

4 - UNCERTAIN

- - MISSING DATA

BDL - BELOW DETECTION LIMIT

CHALK RIVER

MAY 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	SO ₄ ⁼	NO ₃ ⁻	PARTICULATE			GAS SO ₂
			Cl ⁻	Na ⁺	NH ₄ ⁺	
1	2.20	0.48	bd1	bd1	0.63	7.7
2	3.56	0.88	bd1	bd1	0.96	1.9
3	2.09	0.56	0.18	0.19	0.65	3.4
4	1.80	0.45	bd1	0.06	0.51	17.1
5	3.65	1.66	bd1	bd1	1.12	5.7
6	10.68	4.59	0.17	0.06	2.51	16.7
7	13.42	3.63	bd1	0.08	2.67	13.3
8	1.55	0.61	bd1	bd1	0.49	bd1
9	0.31	0.30	bd1	bd1	bd1	bd1
10	0.73	0.32	bd1	0.06	0.55	bd1
11	1.19	0.78	bd1	0.14	1.05	bd1
12	2.62	0.99	bd1	0.08	1.28	4.8
13	0.67	bd1	bd1	bd1	0.51	bd1
14	0.84	0.50	bd1	0.09	0.79	4.2
15	3.93	2.03	bd1	bd1	0.57	7.9
16	5.81	0.68	bd1	0.06	bd1	bd1
17	1.90	0.34	bd1	bd1	bd1	10.1
18	3.64	2.28	0.27	0.14	0.40	6.7
19	2.68	1.21	0.12	0.05	0.48	6.1
20	1.42	0.22	bd1	bd1	0.37	bd1
21	2.18	0.40	0.11	bd1	0.36	bd1
22	1.98	0.56	0.10	bd1	0.36	10.7
23	3.53	1.23	bd1	0.10	0.51	bd1
24	4.45	0.70	bd1	0.19	0.91	bd1
25	2.66	0.31	bd1	0.06	0.70	1.7
26	4.80	0.39	bd1	0.05	0.96	6.7
27	9.34	2.28	0.10	0.13	2.48	23.4
28	8.16	1.49	bd1	0.07	2.19	3.9
29	8.65	1.30	bd1	0.09	2.13	3.1
30	7.79	0.92	bd1	bd1	1.71	bd1
31	4.26	0.44	bd1	bd1	1.29	6.5

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	31	31	31
A. MEAN	3.95	1.05	-	0.06	0.94	5.2
S.D.	3.24	1.02	-	0.06	0.76	6.0
MIN.	0.31	bd1	-	bd1	bd1	bd1
MAX.	13.42	4.59	-	0.19	2.67	23.4

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL.	
	STD (mm)	COLL (mm)											RATIO +VE/-VE	PRECIP TYPE
5	3.0	3.3	-	-	-	-	-	-	-	-	-	-	-	1
7	2.2	2.0	4.60	7.5	3.943	1.1	2.31	0.986	0.04	0.54	0.46	0.069	0.94	1
8	5.2	4.1	4.50	2.5	1.121	0.4	0.62	0.459	BDL	0.35	0.16	0.012	-	1
19	2.0	1.3	3.60	18.2	-	1.0	3.66	-	0.18	-	-	-	-	1
23	3.8	3.4	4.30	4.6	2.330	0.7	0.98	0.673	BDL	0.47	0.30	0.028	-	1
28	3.8	3.3	3.80	9.8	5.006	0.7	1.14	1.793	BDL	0.44	0.37	0.050	-	1
30	49.0	55.0	4.30	2.1	0.882	0.2	0.16	0.302	BDL	0.09	0.06	0.003	-	1
TOTAL PRECIP	69.0	72.4												
NO. OBS.	7	7	6	6	5	6	6	5	6	5	5	5	-	
A. MEAN	9.9	10.3	4.02	7.4	2.656	0.7	1.48	0.843	0.04	0.38	0.27	0.033	-	
STD. DEV.	17.3	19.7	4.04	6.0	1.788	0.3	1.29	0.590	0.07	0.17	0.16	0.027	-	
MINIMUM	2.0	1.3	3.60	2.1	0.882	0.2	0.16	0.302	BDL	0.09	0.06	0.003	-	
MAXIMUM	49.0	55.0	4.60	18.2	5.006	1.1	3.66	1.793	0.18	0.54	0.46	0.069	-	
P.W. MEAN			4.22	3.4	1.337	0.3	0.48	0.449	0.01	0.17	0.11	0.010		

PRECIP TYPE

1 - RAIN

- - MISSING DATA

2 - SNOW

BDL - BELOW DETECTION LIMIT

3 - MIXED

4 - UNCERTAIN

CHALK RIVER

AUGUST 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	SO ₂
1	1.58	0.23	bd1	bd1	0.27	2.4
2	0.19	bd1	0.09	bd1	bd1	bd1
3	0.33	bd1	bd1	bd1	bd1	0.9
4	0.79	0.34	bd1	bd1	bd1	1.1
5	0.69	bd1	bd1	bd1	bd1	2.4
6	0.75	bd1	bd1	bd1	bd1	6.7
7	1.92	bd1	bd1	bd1	0.52	0.9
8	7.42	1.13	bd1	bd1	2.28	5.4
9	2.27	0.38	bd1	bd1	0.63	0.4
10	bd1	bd1	bd1	bd1	bd1	bd1
11	0.29	bd1	bd1	bd1	bd1	bd1
12	0.26	bd1	bd1	bd1	bd1	3.6
13	0.97	bd1	bd1	bd1	0.30	0.5
14	1.18	bd1	bd1	bd1	0.33	0.4
15	2.46	0.22	bd1	bd1	0.78	8.7
16	8.76	0.91	0.11	bd1	2.35	0.3
17	0.86	bd1	bd1	bd1	0.27	0.6
18	0.51	bd1	bd1	bd1	0.29	0.4
19	3.64	0.48	0.11	bd1	1.15	0.9
20	0.88	bd1	0.11	bd1	0.26	1.2
21	0.46	bd1	0.09	bd1	0.22	0.3
22	1.33	0.28	bd1	bd1	0.56	5.3
23	7.22	bd1	bd1	bd1	0.60	11.2
24	2.79	bd1	bd1	bd1	0.57	1.4
25	0.87	bd1	bd1	bd1	bd1	bd1
26	2.13	0.38	bd1	bd1	0.84	2.0
27	0.77	bd1	bd1	bd1	0.25	2.3
28	bd1	bd1	bd1	bd1	bd1	bd1
29	0.29	bd1	bd1	bd1	bd1	0.3
30	3.54	0.59	bd1	bd1	0.69	11.6
31	0.68	bd1	bd1	bd1	bd1	2.5

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	-	-	-	31	31
A. MEAN	1.80	-	-	-	0.43	2.4
S.D.	2.23	-	-	-	0.59	3.2
MIN.	bd1	-	-	-	bd1	bd1
MAX.	8.76	-	-	-	2.35	11.6

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL.	PRECIP TYPE
	STD (mm)	COLL (mm)											RATIO +VE/-VE	
4	8.0	7.8	4.00	6.2	2.481	0.4	0.32	0.740	0.04	0.12	0.10	0.033	0.93	1
7	11.4	11.1	5.00	1.1	0.620	0.3	0.12	0.399	0.02	0.20	0.14	0.007	1.26	1
10	2.6	2.3	4.60	2.3	0.930	0.3	0.28	0.726	0.05	0.21	0.07	0.024	1.34	1
19	6.3	5.9	4.60	2.2	1.152	0.2	0.25	0.359	0.08	0.16	0.05	0.009	1.03	1
22	18.6	19.2	4.60	0.9	0.576	0.1	0.06	0.157	0.01	0.05	0.03	0.006	1.28	1
24	2.7	3.3	4.60	1.3	0.709	0.3	0.23	0.218	0.04	0.16	0.07	0.018	1.30	1
26	3.8	3.6	5.40	2.0	0.886	0.6	0.24	0.557	0.03	0.50	0.44	0.017	1.10	1
27	6.5	6.5	4.50	2.9	1.772	0.2	0.32	0.654	0.04	0.09	0.08	0.013	0.98	1
TOTAL PRECIP	59.9	59.7												
NO. OBS.	8	8	8	8	8	8	8	8	8	8	8	8	8	
A. MEAN	7.5	7.5	4.51	2.4	1.141	0.3	0.23	0.476	0.04	0.19	0.12	0.016	1.15	
STD. DEV.	5.4	5.5	4.53	1.7	0.663	0.2	0.09	0.226	0.02	0.14	0.13	0.009	0.16	
MINIMUM	2.6	2.3	4.00	0.9	0.576	0.1	0.06	0.157	0.01	0.05	0.03	0.006	0.93	
MAXIMUM	18.6	19.2	5.40	6.2	2.481	0.6	0.32	0.740	0.08	0.50	0.44	0.033	1.34	
P.W. MEAN			4.50	2.1	1.070	0.3	0.18	0.409	0.03	0.14	0.10	0.013		

PRECIP TYPE

1 - RAIN

- - MISSING DATA

2 - SNOW

BDL - BELOW DETECTION LIMIT

3 - MIXED

4 - UNCERTAIN

CHALK RIVER

SEPTEMBER 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	SO ₄ ⁼	PARTICULATE				GAS SO ₂
		NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	0.56	bd1	bd1	bd1	0.24	2.5
2	1.25	bd1	bd1	bd1	0.40	3.2
3	0.28	bd1	bd1	bd1	bd1	bd1
4	0.46	bd1	bd1	bd1	bd1	bd1
5	2.21	0.61	bd1	bd1	0.86	1.2
6	0.29	bd1	bd1	bd1	bd1	bd1
7	1.02	0.58	0.12	bd1	0.32	4.5
8	2.42	0.33	bd1	bd1	0.57	7.4
9	7.85	0.92	bd1	bd1	1.98	3.9
10	11.41	1.13	bd1	bd1	-	5.0
11	25.37	1.28	bd1	bd1	-	15.3
12	30.52	1.24	bd1	0.14	-	9.9
13	29.73	0.87	bd1	bd1	-	12.3
14	5.14	0.20	bd1	bd1	1.03	0.5
15	0.80	0.18	bd1	bd1	0.22	bd1
16	0.95	bd1	bd1	bd1	bd1	2.6
17	0.47	0.17	0.08	bd1	0.16	1.8
18	0.37	bd1	bd1	bd1	bd1	bd1
19	0.60	bd1	bd1	bd1	0.31	7.3
20	3.01	1.23	bd1	bd1	0.79	15.0
21	2.77	0.36	bd1	bd1	0.50	3.0
22	5.76	0.72	bd1	bd1	1.22	9.3
23	3.51	0.43	bd1	bd1	0.78	5.8
24	6.03	1.18	bd1	bd1	1.57	10.0
25	11.26	2.15	0.10	bd1	2.40	4.4
26	11.96	2.95	0.11	bd1	3.64	3.3
27	7.80	0.47	bd1	bd1	1.58	0.7
28	1.49	0.25	0.18	bd1	0.31	2.2
29	2.82	1.09	0.09	bd1	0.94	1.3
30	9.88	1.56	bd1	bd1	1.71	11.3

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	30	-	-	26	30
A. MEAN	6.27	0.66	-	-	0.83	4.8
S.D.	8.41	0.71	-	-	0.88	4.6
MIN.	0.28	bd1	-	-	bd1	bd1
MAX.	30.52	2.95	-	-	3.64	15.3

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL.	
	STD (mm)	COLL (mm)											RATIO +VE/-VE	PRECIP TYPE
1	29.4	30.9	4.00	5.0	1.861	0.1	0.20	0.377	0.02	0.21	0.04	0.003	1.04	1
2	7.4	7.8	5.30	0.8	0.350	0.7	0.11	0.135	0.02	0.12	0.09	0.004	0.61	1
3	3.0	2.3	4.80	0.8	BDL	0.2	0.08	BDL	0.01	0.13	0.07	0.016	-	1
4 (2)	8.6	8.3	4.80	1.6	0.842	0.1	0.15	0.264	0.02	0.12	0.07	0.027	-	1
14	14.0	13.4	4.30	2.9	1.373	0.1	0.17	0.244	0.03	0.02	0.18	0.051	0.94	1
15	5.0	4.9	5.00	2.9	1.285	0.3	0.27	0.614	0.05	0.32	0.51	0.004	0.97	1
17	23.0	22.8	4.60	1.5	0.975	0.4	0.06	0.155	BDL	BDL	0.02	0.002	-	1
18	2.0	1.3	4.90	1.1	0.266	0.3	-	0.322	-	-	-	-	-	1
20	9.0	9.1	4.30	3.1	2.924	0.3	0.34	0.593	0.05	0.08	0.05	0.007	0.91	1
24	6.3	5.7	3.90	4.6	-	0.3	0.28	-	0.04	-	-	0.010	-	1
25	1.6	1.5	3.90	6.9	5.493	0.2	0.28	1.232	0.05	0.04	0.08	0.007	0.90	1
27	6.6	5.9	4.30	3.0	1.240	0.2	0.11	0.353	0.02	0.11	0.11	0.007	0.94	1

TOTAL PRECIP 107.3 105.6

NO. OBS.	11	11	11	11	10	11	10	10	10	9	9	10	-
A. MEAN	9.8	9.6	4.28	3.0	1.577	0.3	0.19	0.402	0.03	0.11	0.13	0.011	-
STD. DEV.	9.0	9.4	4.34	1.9	1.617	0.2	0.10	0.349	0.02	0.10	0.15	0.015	-
MINIMUM	1.6	1.3	3.90	0.8	BDL	0.1	0.06	BDL	BDL	BDL	0.02	0.002	-
MAXIMUM	29.4	30.9	5.30	6.9	5.493	0.7	0.34	1.232	0.05	0.32	0.51	0.051	-
P.W. MEAN			4.24	3.1	1.477	0.3	0.17	0.321	0.02	0.11	0.09	0.011	

PRECIP TYPE

- 1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN
- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

CHALK RIVER

OCTOBER 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	2.12	bd1	bd1	bd1	0.48	0.6
2	0.32	0.30	bd1	bd1	bd1	bd1
3	1.30	0.66	bd1	bd1	0.26	11.2
4	1.04	bd1	bd1	bd1	bd1	17.0
5	1.67	0.52	bd1	bd1	0.26	7.6
6	2.73	0.91	bd1	bd1	0.68	7.5
7	2.27	2.02	bd1	bd1	0.87	6.5
8	2.90	0.72	bd1	bd1	0.70	11.2
9	1.16	0.30	bd1	bd1	bd1	2.0
10	1.65	0.79	0.12	0.22	0.42	3.5
11	2.66	1.72	bd1	bd1	0.78	27.2
12	3.69	1.55	bd1	bd1	1.07	3.2
13	2.31	0.57	bd1	bd1	0.72	2.8
14	0.73	bd1	bd1	bd1	bd1	2.3
15	bd1	bd1	0.08	bd1	bd1	0.4
16	bd1	bd1	bd1	bd1	bd1	2.4
17	0.47	bd1	0.11	bd1	bd1	2.4
18	2.25	1.44	bd1	bd1	0.78	9.7
19	5.47	2.50	0.11	bd1	1.91	17.9
20	2.77	1.25	0.10	bd1	0.99	4.1
21	0.26	bd1	bd1	bd1	bd1	0.6
22	0.56	0.20	bd1	bd1	bd1	0.5
23	1.62	0.35	bd1	bd1	0.38	0.5
24	2.22	0.52	bd1	bd1	0.60	2.2
25	3.21	1.55	bd1	0.23	1.27	4.3
26	5.07	0.70	0.12	0.64	1.34	9.0
27	4.26	0.68	bd1	0.49	1.23	8.2
28	8.93	4.82	0.11	0.45	3.81	21.7
29	6.18	3.13	0.08	0.47	2.22	17.7
30	2.06	2.29	0.08	0.20	1.09	6.3
31	2.80	1.74	bd1	bd1	1.08	5.4

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	-	31	31
A. MEAN	2.41	1.01	-	-	0.74	7.0
S.D.	1.97	1.10	-	-	0.82	6.9
MIN.	bd1	bd1	-	-	bd1	bd1
MAX.	8.93	4.82	-	-	3.81	27.2

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO +VE/-VE	PRECIP TYPE
	STD (mm)	COLL (mm)												
1	8.5	8.1	4.50	3.0	1.196	0.7	0.23	0.365	0.04	0.42	0.35	0.001	0.93	1
3	2.0	1.3	3.60	20.3	-	0.8	2.46	-	0.42	-	-	-	-	1
7	15.7	15.3	4.10	5.0	2.614	0.2	0.25	0.529	0.03	0.04	0.05	0.000	0.83	1
8	7.4	7.2	4.50	3.5	2.835	0.2	0.45	0.956	0.07	0.07	0.10	0.009	0.95	1
11	4.4	3.9	3.80	7.9	6.113	0.3	0.26	0.783	0.04	0.12	0.11	0.013	0.83	1
12	2.4	2.0	4.00	2.9	3.145	0.2	0.32	0.564	0.04	0.04	0.06	-	1.32	1
14	5.8	5.5	5.20	0.8	0.354	0.3	0.07	0.111	BDL	0.11	0.09	0.006	-	1
20	5.2	5.2	4.30	3.6	2.862	1.0	0.41	0.437	0.09	0.56	0.41	0.045	0.92	1
TOTAL PRECIP 51.4 48.5														
NO. OBS.	8	8	8	8	7	8	8	7	8	7	7	6	6	
A. MEAN	6.4	6.1	4.05	5.9	2.731	0.4	0.56	0.535	0.09	0.19	0.17	0.013	0.97	
STD. DEV.	4.4	4.4	4.09	6.2	1.810	0.3	0.78	0.276	0.14	0.21	0.15	0.017	0.18	
MINIMUM	2.0	1.3	3.60	0.8	0.354	0.2	0.07	0.111	BDL	0.04	0.05	0.000	0.83	
MAXIMUM	15.7	15.3	5.20	20.3	6.113	1.0	2.46	0.956	0.42	0.56	0.41	0.045	1.32	
P.W. MEAN			4.17	4.6	2.501	0.4	0.36	0.530	0.06	0.18	0.16	0.009		

PRECIP TYPE

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

- - MISSING DATA
BDL - BELOW DETECTION LIMIT

CHALK RIVER

NOVEMBER 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO_4^{2-}	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2
1	1.23	0.75	0.07	bd1	0.52	7.0
2	2.44	1.30	0.77	bd1	1.06	8.2
3	1.19	0.21	bd1	bd1	0.30	12.8
4	0.62	bd1	bd1	bd1	0.28	1.8
5	1.08	0.54	bd1	bd1	0.35	1.4
6	1.64	0.31	0.10	bd1	0.19	0.5
7	3.94	3.59	bd1	bd1	1.97	6.4
8	0.67	0.42	bd1	bd1	0.27	0.5
9	0.52	bd1	0.07	bd1	bd1	1.2
10	1.00	0.84	0.10	bd1	0.39	7.4
11	5.27	2.78	0.28	0.17	2.45	6.5
12	2.87	0.88	bd1	bd1	1.06	2.7
13	0.48	bd1	0.21	bd1	bd1	6.1
14	0.96	0.58	0.12	bd1	0.26	4.5
15	0.94	0.53	0.10	bd1	0.28	4.4
16	3.36	3.51	0.14	bd1	1.70	14.3
17	4.87	3.70	0.14	bd1	2.39	19.6
18	5.74	5.74	0.39	0.14	3.21	17.6
19	6.29	6.87	0.28	0.18	3.85	14.5
20	5.31	2.82	0.22	0.20	2.13	3.3
21	1.36	0.56	bd1	bd1	0.54	0.9
22	1.62	0.42	bd1	bd1	0.45	6.8
23	1.52	0.28	0.21	bd1	0.39	10.1
24	0.92	bd1	0.10	bd1	0.20	5.1
25	2.02	0.95	0.20	bd1	0.55	2.3
26	1.29	0.79	0.22	bd1	0.27	11.2
27	0.78	0.41	0.24	bd1	bd1	1.2
28	1.67	1.51	0.11	bd1	0.78	3.7
29	1.31	0.21	0.11	bd1	0.30	1.9
30	3.31	1.38	0.14	bd1	1.05	1.7

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	30	30	-	30	30
A. MEAN	2.21	1.40	0.14	-	0.91	6.2
S.D.	1.74	1.74	0.16	-	1.01	5.3
MIN.	0.48	bd1	bd1	-	bd1	0.5
MAX.	6.29	6.87	0.77	-	3.85	19.6

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO_4^{2-}	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	ION BAL.	
	STD (mm)	COLL (mm)											RATIO +VE/-VE	PRECIP TYPE
1	2.2	2.3	3.70	4.9	3.491	0.3	0.49	0.626	0.07	0.13	0.20	0.016	1.65	1
2	16.0	16.0	4.30	2.5	1.834	0.3	0.11	0.364	0.02	0.05	0.05	0.009	0.90	1
3	14.0	14.7	5.00	0.4	0.536	0.1	BDL	0.053	0.01	0.05	0.07	0.007	-	1
4	7.0	3.3	4.80	0.8	0.762	0.2	BDL	0.178	BDL	0.06	0.07	0.026	-	1
11	9.9	8.8	4.20	3.7	3.624	0.3	0.15	1.058	0.04	0.17	0.15	0.051	1.00	1
12	4.0	2.9	4.30	2.7	1.387	0.3	0.12	0.245	0.03	0.11	0.10	0.038	0.92	4
14	3.6	5.5	4.40	0.5	2.640	0.2	0.11	0.076	0.02	0.09	0.04	0.016	0.95	2
20	7.1	6.7	4.20	4.2	3.668	0.4	0.21	0.890	0.07	0.32	0.18	0.058	0.92	1
21	5.2	5.9	4.70	1.4	0.580	0.2	0.09	0.148	0.02	0.12	0.11	0.008	0.94	1
23	14.2	13.7	5.40	1.6	0.939	0.2	0.10	0.444	0.02	0.14	0.16	0.056	0.82	4
25	2.8	2.3	4.30	2.7	5.538	0.4	0.45	1.007	0.06	0.37	0.12	-	0.96	2
26	1.5	3.9	4.30	3.5	-	0.4	-	-	-	-	-	-	-	2
28	5.0	4.6	4.50	1.8	1.931	0.4	0.18	0.275	0.03	0.28	0.25	-	0.97	4
29	1.7	2.6	4.20	1.9	0.749	0.1	0.12	0.044	0.02	0.15	0.07	-	1.48	3
30	1.2	1.6	3.80	4.7	6.645	0.4	0.40	0.819	0.05	-	-	-	-	1
TOTAL PRECIP	95.4	94.8	-	-	-	-	-	-	-	-	-	-	-	-
NO. OBS.	15	15	15	15	14	15	14	14	14	13	13	10	-	-
A. MEAN	6.4	6.3	4.24	2.5	2.452	0.3	0.18	0.445	0.03	0.16	0.12	0.029	-	-
STD. DEV.	5.0	4.8	4.27	1.5	1.923	0.1	0.16	0.167	0.02	0.10	0.06	0.021	-	-
MINIMUM	1.2	1.6	3.70	0.4	0.536	0.1	BDL	0.044	BDL	0.05	0.04	0.007	-	-
MAXIMUM	16.0	16.0	5.40	4.9	6.645	0.4	0.49	1.058	0.07	0.37	0.25	0.058	-	-
P.W. MEAN	-	-	4.41	2.1	1.891	0.3	0.12	0.421	0.03	0.13	0.11	0.029	-	-

PRECIP TYPE

1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN

- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

CHALK RIVER (DECEMBER 1982)
-3 -1
PRECIPITATION CONCENTRATIONS (10 gl)

DAY	AMOUNT		PH	SO4=	NO3-	Cl-	Ca++	NH4+	Mg++	Na+	K+	TOT P	ION BAL. RATIO +VE/-VE	PRECIP TYPE
	STD (mm)	COLL (mm)												
2	4.2	4.6	3.80	6.2	6.689	0.6	0.23	1.073	0.05	0.27	0.12	-	0.98	1
3	5.0	5.2	4.30	2.7	2.383	0.3	0.13	0.392	0.02	0.13	0.08	-	0.85	1
5	17.4	16.9	4.50	2.5	1.426	0.2	0.08	0.392	0.02	0.17	0.11	0.021	0.86	1
8	1.1	0.7	4.30	1.8	-	0.6	-	-	-	-	-	-	-	2
10	3.3	1.3	4.20	1.3	3.163	0.4	0.24	0.303	0.04	0.21	0.05	-	1.20	2
15	10.0	9.8	4.40	1.3	1.737	0.2	0.11	0.160	0.01	0.10	0.08	0.004	1.02	2
16	2.2	0.7	4.70	1.1	0.354	0.3	-	BDL	-	-	-	-	-	2
18	2.6	2.1	6.40	2.1	2.494	2.9	0.66	0.747	0.09	2.10	1.32	-	1.15	2
19	10.8	6.8	4.30	1.2	1.914	0.3	0.13	0.103	0.02	0.16	0.05	0.005	1.11	2
22	2.0	1.6	4.10	1.1	2.937	0.4	0.31	0.143	0.04	-	-	-	-	2
23	4.7	-	-	-	-	-	-	-	-	-	-	-	-	3
24	16.6	16.4	4.30	2.1	1.471	0.2	0.07	0.271	0.01	0.13	0.06	0.004	1.03	1
25	3.3	3.7	4.70	2.8	1.245	0.3	0.40	0.375	0.25	0.22	0.11	-	1.08	1
26 (2)	3.5	3.9	4.30	2.1	2.047	0.5	0.12	0.317	0.02	0.33	0.21	-	-	1
28	8.2	7.2	4.70	2.0	1.063	0.5	0.13	0.334	0.02	0.24	0.13	0.004	0.82	2
31	0.7	BDL	-	-	-	-	-	-	-	-	-	-	-	2
TOTAL PRECIP	92.1	77.0												
NO. OBS.	15	14	13	13	12	13	11	12	11	10	10	-	10	
A. MEAN	6.1	5.5	4.31	2.2	2.240	0.6	0.23	0.358	0.05	0.37	0.21	-	1.01	
STD. DEV.	5.3	5.5	4.41	1.4	1.617	0.7	0.18	0.295	0.07	0.61	0.39	-	0.13	
MINIMUM	0.7	BDL	3.80	1.1	0.354	0.2	0.07	BDL	0.01	0.10	0.05	-	0.82	
MAXIMUM	17.4	16.9	6.40	6.2	6.689	2.9	0.66	1.073	0.25	2.10	1.32	-	1.20	
P.W. MEAN			4.34	2.1	1.912	0.4	0.15	0.324	0.03	0.23	0.13	-		

PRECIP TYPE

- 1 - RAIN
 - 2 - SNOW
 - 3 - MIXED
 - 4 - UNCERTAIN
- - MISSING DATA
BDL - BELOW DETECTION LIMIT

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

APPENDIX 4

MONTHLY SUMMARIES OF MEASURED CONCENTRATIONS IN AIR AND PRECIPITATION AT LONG POINT

LONG POINT

JANUARY 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	SO ₂
1	1.66	0.65	bd1	bd1	0.39	7.1
2	0.88	bd1	bd1	bd1	bd1	13.0
3	2.15	1.08	bd1	bd1	0.52	10.3
4	0.92	0.53	bd1	bd1	bd1	5.1
5	1.06	1.20	bd1	bd1	0.47	25.1
6	1.24	1.68	bd1	bd1	0.84	10.5
7	0.34	bd1	bd1	bd1	0.25	5.0
8	1.13	1.07	bd1	bd1	0.51	10.4
9	0.39	bd1	bd1	bd1	bd1	bd1
10	0.56	bd1	0.12	bd1	bd1	7.7
11	-	-	-	-	-	-
12	2.27	1.89	bd1	bd1	0.35	57.7
13	2.01	1.73	bd1	0.10	0.62	68.0
14	1.81	1.83	bd1	0.11	0.53	63.0
15	3.87	3.05	bd1	0.09	1.02	85.6
16	1.21	0.88	0.47	0.21	0.23	18.8
17	1.21	1.08	bd1	0.15	bd1	35.7
18	0.32	bd1	bd1	bd1	bd1	3.7
19	3.52	3.98	0.22	0.18	1.13	60.9
20	3.32	1.59	0.43	0.26	0.57	81.0
21	2.85	0.58	0.41	0.15	0.25	81.6
22	0.75	bd1	0.20	0.08	bd1	17.7
23	1.44	bd1	bd1	bd1	bd1	39.0
24	1.05	0.48	bd1	bd1	bd1	40.9
25	0.75	0.49	bd1	bd1	0.29	4.7
26	1.69	1.64	bd1	bd1	0.51	11.7
27	2.02	1.08	bd1	bd1	0.38	66.0
28	1.37	1.58	0.10	bd1	0.54	22.9
29	0.37	0.45	bd1	bd1	0.23	36.1
30	1.39	1.03	bd1	bd1	0.52	20.4
31	-	-	-	bd1	0.28	41.3

bd1 - BELOW DETECTION LIMIT

NO. OBS.	29	29	-	-	30	30
A. MEAN	1.50	1.02	-	-	0.35	31.7
S.D.	0.95	0.95	-	-	0.31	26.9
MIN.	0.32	bd1	-	-	bd1	bd1
MAX.	3.87	3.98	-	-	1.13	85.6

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL.	PRECIP TYPE
	STD (mm)	COLL (mm)											RATIO +VE/-VE	
3	11.0	9.8	4.20	1.5	2.233	BDL	0.28	0.178	0.04	0.11	0.01	0.005	-	1
4	1.0	0.3	-	9.9	-	-	-	-	-	-	-	-	-	4
6	2.2	2.3	4.20	2.0	-	0.5	1.82	-	0.14	0.41	0.12	0.014	-	2
9	2.0	-	-	-	-	-	-	-	-	-	-	-	-	2
11	8.2	-	-	-	-	-	-	-	-	-	-	-	-	2
29	9.4	8.1	4.50	1.7	2.326	0.2	0.60	0.107	0.08	0.09	0.01	0.015	1.00	2
31	69.9	18.9	4.40	2.4	0.983	0.6	0.61	0.026	0.08	0.45	BDL	0.021	-	2
TOTAL PRECIP 103.7 39.4														
NO. OBS.	7	5	4	5	3	4	4	3	4	4	4	4	-	
A. MEAN	14.8	7.9	4.31	3.5	1.847	0.3	0.83	0.104	0.08	0.26	0.03	0.014	-	
STD. DEV.	24.6	7.3	4.79	3.6	0.750	0.3	0.68	0.076	0.04	0.19	0.06	0.006	-	
MINIMUM	1.0	0.3	4.20	1.5	0.983	BDL	0.28	0.026	0.04	0.09	BDL	0.005	-	
MAXIMUM	69.9	18.9	4.50	9.9	2.326	0.6	1.82	0.178	0.14	0.45	0.12	0.021	-	
P.W. MEAN			4.37	2.3	1.275	0.5	0.60	0.053	0.08	0.37	0.01	0.018		

PRECIP TYPE

1 - RAIN
2 - SNOW
3 - MIXED
4 - UNCERTAIN

- - MISSING DATA
BDL - BELOW DETECTION LIMIT

LONG POINT

FEBRUARY 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2
1	5.72	5.12	0.14	0.14	1.76	171.6
2	1.46	1.28	bd1	bd1	0.56	69.1
3	2.04	1.21	0.20	bd1	0.67	39.7
4	2.35	2.04	bd1	bd1	0.91	74.6
5	1.87	1.83	bd1	bd1	0.65	31.5
6	1.71	1.55	bd1	bd1	0.46	50.1
7	0.96	1.05	bd1	bd1	0.30	22.2
8	3.95	4.29	0.13	0.11	1.34	57.7
9	1.66	3.03	bd1	bd1	0.88	23.3
10	2.95	3.63	0.12	bd1	1.10	80.3
11	3.42	4.45	0.17	0.11	1.59	25.7
12	4.16	4.50	bd1	bd1	1.51	36.6
13	5.30	3.30	bd1	bd1	1.39	97.5
14	0.17	0.72	bd1	bd1	bd1	9.6
15	1.68	1.55	bd1	bd1	0.62	22.0
16	2.42	1.15	bd1	bd1	0.89	30.9
17	0.33	bd1	bd1	bd1	0.33	14.9
18	1.64	1.04	bd1	bd1	0.59	21.2
19	4.92	1.82	bd1	bd1	1.27	27.6
20	2.97	2.15	bd1	bd1	1.12	17.9
21	2.36	1.22	bd1	bd1	0.88	10.2
22	2.79	1.06	0.11	0.11	0.63	32.4
23	2.78	1.39	0.15	bd1	1.10	34.0
24	0.85	0.63	0.18	0.08	0.44	20.9
25	1.98	1.26	0.21	0.09	0.46	17.3
26	0.71	0.95	bd1	bd1	0.25	16.8
27	2.94	6.14	0.17	bd1	1.42	21.7
28	1.55	2.03	0.18	0.11	0.80	35.8

bd1 - BELOW DETECTION LIMIT

NO. OBS.	28	28	-	-	28	28
A. MEAN	2.42	2.16	-	-	0.85	39.7
S.D.	1.42	1.54	-	-	0.45	34.0
MIN.	0.17	bd1	-	-	bd1	9.6
MAX.	5.72	6.14	-	-	1.76	171.6

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	ION BAL.	
	STD (mm)	COLL (mm)											RATIO +VE/-VE	PRECIP TYPE
3	13.0	9.1	4.00	3.0	2.405	0.4	0.29	0.114	0.04	0.10	0.01	0.014	1.13	4
7	3.0	2.0	3.90	6.3	4.430	1.1	-	0.240	-	-	-	-	-	2
8	3.4	3.9	4.00	0.9	4.519	0.1	0.16	0.009	0.03	0.05	BDL	0.014	-	2
13	4.2	2.0	3.20	5.2	4.386	0.9	-	0.894	-	-	-	-	-	2
19	3.0	3.6	3.70	10.8	0.128	1.8	2.82	0.317	0.74	1.17	0.07	-	1.69	2
24	5.4	1.3	-	52.7	48.287	12.8	-	0.299	-	-	-	-	-	2
TOTAL PRECIP	32.0	21.9												
NO. OBS.	6	6	5	6	6	6	-	6	-	-	-	-	-	-
A. MEAN	5.3	3.6	3.64	13.1	10.692	2.9	-	0.312	-	-	-	-	-	-
STD. DEV.	3.9	2.9	3.64	19.7	18.497	4.9	-	0.308	-	-	-	-	-	-
MINIMUM	3.0	1.3	3.20	0.9	0.128	0.1	-	0.009	-	-	-	-	-	-
MAXIMUM	13.0	9.1	4.00	52.7	48.287	12.8	-	0.894	-	-	-	-	-	-
P.W. MEAN			3.70	12.5	10.609	2.7	-	0.267	-	-	-	-	-	-

PRECIP TYPE

1 - RAIN

- - MISSING DATA

2 - SNOW

BDL - BELOW DETECTION LIMIT

3 - MIXED

4 - UNCERTAIN

LONG POINT

MARCH 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁻²	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	0.30	0.70	bd1	bd1	0.23	32.6
2	0.71	bd1	bd1	bd1	0.29	6.9
3	2.06	1.89	0.34	0.09	0.55	70.5
4	2.35	1.84	bd1	bd1	0.84	41.2
5	1.98	1.44	0.09	bd1	0.38	27.8
6	2.48	3.00	0.20	0.18	0.58	61.2
7	2.81	2.42	bd1	bd1	0.84	15.8
8	3.61	1.43	bd1	bd1	0.42	23.9
9	4.50	3.72	bd1	bd1	1.00	44.7
10	3.50	3.08	0.16	bd1	1.03	51.7
11	3.79	2.41	0.16	bd1	1.20	11.2
12	5.66	1.46	bd1	bd1	1.17	14.0
13	0.67	1.13	bd1	bd1	0.43	4.5
14	0.58	1.01	bd1	bd1	0.42	3.6
15	0.95	1.39	0.10	bd1	0.47	17.4
16	1.18	1.33	bd1	bd1	0.58	4.8
17	2.56	2.39	bd1	bd1	0.77	6.2
18	3.14	2.12	0.13	bd1	0.95	8.7
19	3.34	2.12	0.16	bd1	1.16	23.1
20	3.24	3.52	bd1	bd1	1.60	20.9
21	2.55	1.53	0.18	bd1	1.16	7.9
22	1.98	1.15	0.15	bd1	0.98	6.2
23	2.16	1.38	0.10	bd1	0.93	17.2
24	3.97	1.68	0.20	bd1	1.47	22.6
25	1.92	1.81	0.17	bd1	0.90	7.1
26	1.16	bd1	0.28	0.12	0.42	1.9
27	0.86	bd1	0.19	bd1	0.43	1.9
28	1.31	1.35	0.12	bd1	0.53	25.3
29	3.96	3.35	0.18	bd1	1.22	46.3
30	1.41	0.76	0.22	bd1	0.60	11.8
31	0.61	0.55	0.12	bd1	0.39	4.6

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	31	-	31	31
A. MEAN	2.30	1.68	0.11	-	0.77	20.8
S.D.	1.34	0.99	0.10	-	0.36	18.3
MIN.	0.30	bd1	bd1	-	0.23	1.9
MAX.	5.66	3.72	0.34	-	1.60	70.5

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO PRECIP	
	STD (mm)	COLL (mm)											+VE/-VE	TYPE
4	23.2	17.3	3.90	5.5	3.898	0.3	0.55	0.704	0.13	0.19	0.05	0.015	1.15	4
8	4.0	2.3	4.30	5.2	11.031	1.1	-	0.410	-	-	-	0.035	-	2
10	2.4	2.6	3.60	12.5	7.310	1.4	-	1.068	-	-	-	0.023	-	1
11	6.8	7.2	4.10	3.7	2.100	0.1	0.34	0.279	0.06	0.16	0.01	0.009	1.10	1
12	5.8	6.5	3.90	5.5	3.544	0.4	0.51	0.448	0.07	0.30	0.03	0.012	1.08	1
16	16.0	13.7	4.10	4.4	3.194	0.3	0.76	0.422	0.11	0.15	0.05	0.016	1.04	1
20	1.0	1.3	3.60	11.7	13.955	0.6	-	1.223	-	-	-	-	-	1
25	9.4	6.8	3.80	6.9	6.424	0.8	0.51	1.285	0.09	0.18	0.05	0.008	1.01	2
30	14.2	14.7	4.20	3.1	2.481	0.5	0.63	0.324	0.08	0.23	0.03	0.007	1.10	1
31	1.6	2.0	4.40	3.9	4.386	0.7	1.11	0.841	0.14	-	-	-	-	1
TOTAL PRECIP	84.4	74.4												
NO. OBS.	10	10	10	10	10	10	7	10	7	6	6	8	6	
A. MEAN	8.4	7.4	3.91	6.2	5.832	0.6	0.63	0.700	0.10	0.20	0.04	0.016	1.08	
STD. DEV.	7.3	5.8	4.11	3.3	3.926	0.4	0.25	0.382	0.03	0.06	0.02	0.009	0.05	
MINIMUM	1.0	1.3	3.60	3.1	2.100	0.1	0.34	0.279	0.06	0.15	0.01	0.007	1.01	
MAXIMUM	23.2	17.3	4.40	12.5	13.955	1.4	1.11	1.285	0.14	0.30	0.05	0.035	1.15	
P.W. MEAN			3.97	5.1	4.202	0.4	0.59	0.605	0.10	0.19	0.04	0.014		

PRECIP TYPE

1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN

- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

LONG POINT

APRIL 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2
1	0.93	bd1	bd1	bd1	0.38	3.2
2	1.32	1.00	0.23	bd1	0.69	16.4
3	1.04	bd1	bd1	bd1	0.38	2.7
4	1.29	bd1	bd1	bd1	0.38	bd1
5	1.80	0.64	0.34	bd1	0.52	57.2
6	1.23	bd1	bd1	bd1	bd1	bd1
7	1.04	0.52	0.10	bd1	0.47	2.2
8	1.50	1.21	0.10	bd1	0.58	8.0
9	1.88	1.61	0.19	bd1	0.74	20.6
10	5.31	1.77	bd1	bd1	1.12	48.3
11	1.93	1.60	bd1	bd1	0.88	3.4
12	2.44	1.94	bd1	bd1	0.75	19.1
13	1.25	0.64	bd1	bd1	0.50	3.9
14	1.96	1.72	bd1	bd1	0.81	10.3
15	2.76	2.91	0.12	bd1	1.04	8.3
16	1.10	bd1	bd1	bd1	0.35	19.9
17	2.67	bd1	bd1	bd1	bd1	bd1
18	6.78	2.16	0.22	bd1	-	bd1
19	1.59	2.27	0.12	bd1	0.59	22.8
20	1.65	1.23	bd1	bd1	0.67	4.1
21	0.27	bd1	bd1	bd1	bd1	7.1
22	0.45	0.62	bd1	bd1	0.25	5.2
23	2.27	4.90	bd1	bd1	1.56	6.6
24	5.20	6.41	bd1	bd1	2.12	21.0
25	7.89	4.16	bd1	bd1	1.71	33.2
26	2.24	2.13	bd1	bd1	1.01	5.5
27	2.73	0.61	bd1	bd1	0.91	6.2
28	1.47	1.38	0.11	bd1	0.68	10.1
29	1.85	1.07	bd1	bd1	0.72	8.9
30	0.66	0.49	bd1	bd1	0.29	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	30	-	-	29	30
A. MEAN	2.22	1.43	-	-	0.69	11.8
S.D.	1.79	1.53	-	-	0.49	13.9
MIN.	0.27	bd1	-	-	bd1	bd1
MAX.	7.89	6.41	-	-	2.12	57.2

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)											+VE/-VE		
2 (2)	6.2	5.5	5.90	3.7	3.323	0.5	2.56	0.344	0.34	0.19	0.08	0.080	-		4
5	-	1.0	6.70	6.4	-	4.0	-	-	-	-	-	-	-		2
11	5.2	2.3	5.00	9.1	13.467	1.2	5.27	1.509	0.86	0.45	0.10	-	1.02		2
12	3.2	2.6	6.00	12.4	9.480	0.8	4.98	3.299	0.52	0.41	0.18	0.026	1.14		1
16	6.4	6.5	3.80	9.4	7.354	0.8	2.03	1.245	0.31	0.25	0.07	0.012	1.09		1
19	3.3	1.3	4.10	29.2	-	1.4	-	-	-	-	-	-	-		1
20	11.2	8.8	3.90	7.4	3.190	0.3	0.64	0.455	0.10	0.16	BDL	0.004	-		1
26	3.0	1.3	6.20	19.9	-	1.6	8.95	-	2.01	-	-	-	-		1
TOTAL PRECIP	32.3	23.8													
NO. OBS.	6	7	7	7	4	7	5	4	5	4	4	-	-		
A. MEAN	5.4	3.4	4.27	13.4	8.373	1.4	4.37	1.627	0.76	0.32	0.09	-	-		
STD. DEV.	3.2	3.0	4.17	8.3	4.285	1.2	3.22	1.201	0.75	0.14	0.07	-	-		
MINIMUM	3.0	1.0	3.80	6.4	3.190	0.3	0.64	0.455	0.10	0.16	BDL	-	-		
MAXIMUM	11.2	8.8	6.70	29.2	13.467	4.0	8.95	3.299	2.01	0.45	0.18	-	-		
P.W. MEAN			4.07	12.0	7.045	0.8	3.12	1.210	0.53	0.27	0.06	-	-		

PRECIP TYPE

- 1 - RAIN
 2 - SNOW
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 4 - UNCERTAIN
- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS.

LONG POINT

MAY 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	3.40	3.08	bd1	bd1	1.33	3.8
2	2.28	1.67	bd1	bd1	1.03	8.7
3	2.67	2.62	0.17	bd1	0.91	8.0
4	2.79	2.48	0.16	bd1	1.00	18.4
5	2.57	2.32	0.11	bd1	1.02	11.1
6	11.09	2.85	bd1	bd1	2.74	39.7
7	4.53	1.92	bd1	bd1	1.48	12.0
8	1.27	1.86	bd1	bd1	0.74	2.2
9	0.98	0.99	bd1	bd1	0.58	5.8
10	1.11	1.77	0.15	bd1	0.70	13.0
11	27.24	24.27	0.84	27.38	bd1	9.1
12	-	-	-	-	-	-
13	-	-	-	-	-	-
14	-	-	-	-	-	-
15	-	-	-	-	-	-
16	-	-	-	-	-	-
17	-	-	-	-	-	-
18	-	-	-	-	-	-
19	-	-	-	-	-	-
20	-	-	-	-	-	-
21	-	-	-	-	-	-
22	-	-	-	-	-	-
23	-	-	-	-	-	-
24	-	-	-	-	-	-
25	-	-	-	-	-	-
26	-	-	-	-	-	-
27	-	-	-	-	-	-
28	-	-	-	-	-	-
29	-	-	-	-	-	-
30	-	-	-	-	-	-
31	-	-	-	-	-	-

bd1 - BELOW DETECTION LIMIT

NO. OBS.	-	-	-	-	-	-
A. MEAN	-	-	-	-	-	-
S.D.	-	-	-	-	-	-
MIN.	-	-	-	-	-	-
MAX.	-	-	-	-	-	-

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO	PRECIP TYPE
	STD (mm)	COLL (mm)											+VE/-VE	
7	14.0	12.7	4.50	-	5.405	-	3.36	0.690	0.38	0.08	0.09	0.025	-	1
8	2.4	1.0	5.20	14.9	-	0.9	-	-	-	-	-	-	-	1
19	3.3	0.7	-	75.2	-	4.8	-	-	-	-	-	-	-	1
21	2.1	1.6	5.60	24.2	-	1.3	8.34	-	1.18	-	-	0.193	-	1
26	24.2	23.8	3.80	7.6	5.095	0.5	1.19	1.548	0.09	0.09	0.18	0.198	1.26	1
27	16.4	17.3	4.00	3.6	2.304	0.1	0.29	0.227	0.02	0.04	BDL	0.750	-	1
31	4.4	3.6	6.20	12.2	7.221	1.1	1.76	7.327	0.24	0.36	0.76	0.005	1.34	1
TOTAL PRECIP	66.8	60.7												
NO. OBS.	7	7	6	-	4	-	5	4	5	4	4	5	-	
A. MEAN	9.5	8.7	4.30	-	5.006	-	2.99	2.448	0.38	0.14	0.26	0.234	-	
STD. DEV.	8.7	9.3	4.19	-	2.031	-	3.19	3.298	0.47	0.15	0.34	0.302	-	
MINIMUM	2.1	0.7	3.80	-	2.304	-	0.29	0.227	0.02	0.04	BDL	0.005	-	
MAXIMUM	24.2	23.8	6.20	-	7.221	-	8.34	7.327	1.18	0.36	0.76	0.750	-	
P.W. MEAN			4.03	-	4.551	-	1.73	1.408	0.19	0.09	0.15	0.293		

PRECIP TYPE

1 - RAIN
 2 - SNOW
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- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

LONG POINT

JUNE 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	-	-	-	-	-	-
2	-	-	-	-	-	-
3	-	-	-	-	-	-
4	-	-	-	-	-	-
5	1.19	bd1	bd1	bd1	0.37	bd1
6	0.90	bd1	bd1	bd1	0.34	7.2
7	4.74	1.24	0.12	bd1	0.99	36.8
8	4.72	2.63	0.14	0.12	1.64	41.8
9	4.45	3.07	0.17	bd1	1.79	14.1
10	4.47	2.15	bd1	bd1	1.75	6.2
11	1.28	1.21	bd1	bd1	0.62	12.0
12	5.16	2.33	bd1	bd1	1.71	12.5
13	2.65	1.71	bd1	bd1	1.13	5.3
14	2.72	5.23	bd1	bd1	1.35	6.5
15	3.30	1.38	bd1	bd1	1.02	7.6
16	2.51	0.94	bd1	bd1	0.99	3.4
17	2.41	1.37	bd1	bd1	0.88	10.8
18	6.11	5.07	bd1	bd1	2.44	11.6
19	3.69	0.69	bd1	bd1	1.18	3.6
20	1.92	1.55	bd1	bd1	0.81	9.7
21	2.74	2.74	bd1	bd1	1.18	5.4
22	1.27	1.09	bd1	bd1	0.67	2.9
23	0.80	0.68	bd1	bd1	0.41	bd1
24	2.36	2.36	bd1	bd1	1.01	10.0
25	4.52	4.45	bd1	bd1	1.99	6.7
26	2.96	2.12	bd1	bd1	1.32	8.0
27	4.36	2.55	0.11	bd1	1.88	8.7
28	5.63	2.11	bd1	bd1	2.08	8.7
29	5.56	0.84	bd1	bd1	1.38	22.9
30	6.31	1.32	bd1	bd1	1.92	8.0

bd1 - BELOW DETECTION LIMIT

NO. OBS.	26	26	-	-	26	26
A. MEAN	3.41	1.96	-	-	1.26	10.4
S.D.	1.68	1.36	-	-	0.57	9.7
MIN.	0.80	bd1	-	-	0.34	bd1
MAX.	6.31	5.23	-	-	2.44	41.8

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)											+VE/-VE		
5	39.4	54.4	4.20	2.2	1.772	0.1	0.41	0.193	0.05	0.02	0.12	0.020	1.32		1
15	12.3	9.4	4.00	4.8	3.898	0.2	1.19	0.533	0.14	0.06	0.07	0.038	1.21		1
19	7.4	5.5	3.60	9.7	4.341	0.1	0.64	1.091	0.07	0.15	0.03	0.016	1.29		1
20	10.1	9.1	4.10	2.8	1.595	0.1	0.42	0.431	0.04	0.05	BDL	0.007	-		1
25	3.2	2.6	3.80	7.1	6.512	0.4	2.09	0.877	0.24	0.29	0.40	-	1.33		1
26 (2)	3.2	2.9	3.80	7.7	3.898	0.4	1.18	0.786	0.11	0.13	0.06	-	-		1
28	18.4	17.3	3.60	7.9	3.145	0.1	0.57	0.404	0.02	0.02	0.05	0.015	1.40		1
TOTAL PRECIP	90.8	98.3													
NO. OBS.	6	6	6	6	6	6	6	6	6	6	6	5	5		
A. MEAN	15.1	16.4	3.82	5.7	3.544	0.2	0.89	0.588	0.09	0.10	0.11	0.019	1.31		
STD. DEV.	12.9	19.3	4.07	3.0	1.826	0.1	0.66	0.333	0.08	0.11	0.15	0.011	0.07		
MINIMUM	3.2	2.6	3.60	2.2	1.595	0.1	0.41	0.193	0.02	0.02	BDL	0.007	1.21		
MAXIMUM	39.4	54.4	4.20	9.7	6.512	0.4	2.09	1.091	0.24	0.29	0.40	0.038	1.40		
P.W. MEAN			3.90	4.6	2.695	0.1	0.63	0.406	0.06	0.05	0.09	0.020			

PRECIP TYPE

1 - RAIN
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BDL - BELOW DETECTION LIMIT

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

LONG POINT

JULY 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	SO ₂
1	2.34	2.33	bd1	bd1	1.23	2.7
2	3.67	1.72	bd1	bd1	1.36	4.8
3	9.04	1.75	bd1	bd1	2.33	22.3
4	3.53	0.88	bd1	bd1	1.01	7.2
5	12.32	1.66	bd1	bd1	3.03	14.3
6	2.57	0.81	bd1	bd1	1.02	bd1
7	0.45	0.37	bd1	bd1	bd1	bd1
8	0.71	0.61	bd1	bd1	0.32	1.7
9	2.83	2.38	bd1	bd1	1.30	10.2
10	4.67	3.69	bd1	bd1	2.06	15.1
11	2.32	3.15	bd1	bd1	1.52	12.8
12	2.19	3.30	0.12	bd1	0.99	9.0
13	2.33	2.61	0.12	bd1	0.83	20.0
14	3.34	2.37	bd1	bd1	1.12	3.6
15	9.54	2.03	bd1	bd1	2.46	10.5
16	20.51	0.41	bd1	bd1	3.46	21.2
17	11.36	1.31	bd1	bd1	2.57	12.9
18	5.92	1.47	0.12	bd1	1.70	7.0
19	2.13	2.24	0.29	0.18	1.03	6.7
20	1.08	1.23	0.23	bd1	0.54	10.2
21	3.57	1.79	0.14	bd1	1.20	8.5
22	3.52	2.28	0.19	bd1	1.29	5.8
23	1.50	1.89	0.22	bd1	0.77	16.5
24	1.77	1.87	bd1	bd1	0.74	4.8
25	4.23	2.04	bd1	bd1	1.51	12.0
26	1.31	1.70	0.10	bd1	0.58	3.3
27	1.34	1.64	bd1	bd1	0.76	8.5
28	0.66	0.40	bd1	bd1	0.24	bd1
29	3.61	1.36	bd1	bd1	0.97	4.7
30	5.33	1.52	bd1	bd1	1.26	13.0
31	2.95	1.11	bd1	bd1	1.10	2.2

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	-	31	31
A. MEAN	4.28	1.74	-	-	1.30	8.8
S.D.	4.26	0.82	-	-	0.80	6.2
MIN.	0.45	0.37	-	-	bd1	bd1
MAX.	20.51	3.69	-	-	3.46	22.3

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL.	PRECIP TYPE
	STD (mm)	COLL (mm)											RATIO +VE/-VE	
3	2.3	1.6	3.60	13.7	8.550	1.1	-	0.094	-	-	-	-	-	1
27	29.4	28.3	4.70	6.9	2.481	0.3	1.01	1.316	0.21	0.10	0.21	0.109	0.89	1
30	2.3	2.0	3.70	10.1	-	0.8	1.30	-	0.28	0.28	0.18	0.050	-	1
TOTAL PRECIP	34.0	31.9												
NO. OBS.	3	3	3	3	2	3	2	2	2	2	2	2	1	
A. MEAN	11.3	10.6	3.80	10.2	5.516	0.7	1.16	0.705	0.24	0.19	0.19	0.080	0.89	
STD. DEV.	15.6	15.3	3.92	3.4	4.291	0.4	0.21	0.864	0.05	0.13	0.02	0.042	-1.00	
MINIMUM	2.3	1.6	3.60	6.9	2.481	0.3	1.01	0.094	0.21	0.10	0.18	0.050	0.89	
MAXIMUM	29.4	28.3	4.70	13.7	8.550	1.1	1.30	1.316	0.28	0.28	0.21	0.109	0.89	
P.W. MEAN			4.32	7.6	2.921	0.3	1.03	1.227	0.22	0.11	0.21	0.105		

PRECIP TYPE

1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN

- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

LONG POINT

AUGUST 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	SO ₂
1	3.24	2.67	0.11	bd1	1.72	7.3
2	5.27	1.81	bd1	bd1	1.86	10.0
3	2.08	1.60	0.11	bd1	0.99	3.7
4	6.18	1.91	bd1	bd1	2.42	3.9
5	3.40	3.43	0.47	0.26	1.52	10.3
6	2.77	2.91	0.22	bd1	1.28	8.4
7	4.73	3.32	0.39	0.21	1.98	8.0
8	6.13	0.96	0.34	0.21	2.13	8.1
9	1.19	1.85	0.17	bd1	0.51	9.7
10	0.32	0.45	bd1	bd1	bd1	8.9
11	0.49	0.49	bd1	bd1	bd1	2.1
12	0.42	0.90	bd1	bd1	bd1	bd1
13	2.07	1.64	bd1	bd1	0.71	7.5
14	6.90	2.77	bd1	bd1	1.63	6.4
15	10.10	2.89	bd1	bd1	2.56	10.0
16	10.89	2.05	bd1	bd1	2.84	8.6
17	0.28	bd1	bd1	bd1	bd1	1.5
18	1.85	1.01	bd1	bd1	0.61	4.5
19	2.69	1.45	bd1	bd1	0.89	5.7
20	1.80	0.69	bd1	bd1	0.68	4.9
21	0.32	bd1	bd1	bd1	bd1	bd1
22	2.10	1.86	bd1	bd1	0.78	15.3
23	6.13	2.87	bd1	bd1	2.04	9.7
24	5.20	2.14	bd1	bd1	1.61	9.1
25	0.40	0.34	bd1	bd1	bd1	1.9
26	3.45	2.38	bd1	bd1	1.49	11.1
27	1.98	1.23	bd1	bd1	0.73	5.1
28	bd1	bd1	bd1	bd1	bd1	bd1
29	0.50	1.04	bd1	bd1	0.40	3.5
30	8.23	1.84	bd1	bd1	1.85	26.8
31	3.28	2.80	0.17	bd1	1.58	6.7

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	-	31	31
A. MEAN	3.37	1.65	-	-	1.12	7.0
S.D.	2.95	1.02	-	-	0.86	5.2
MIN.	bd1	bd1	-	-	bd1	bd1
MAX.	10.89	3.43	-	-	2.84	26.8

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)											+VE/-VE		
1	13.1	10.4	4.30	4.0	2.126	0.2	0.31	0.458	0.05	0.03	0.03	0.020	0.79		1
7	5.0	6.5	3.80	10.5	5.626	0.3	1.16	0.974	0.14	0.08	0.07	0.078	0.90		1
19	18.1	5.5	4.00	19.2	4.164	0.3	1.51	2.954	0.39	0.13	0.35	0.260	0.81		1
23	2.1	0.7	-	32.6	-	1.2	-	-	-	-	-	-	-		1
24	33.2	35.5	4.00	4.8	2.259	0.1	0.11	0.551	0.02	BDL	BDL	0.024	-		1
29	2.0	1.3	3.90	5.8	-	0.4	-	-	-	-	-	-	-		1
TOTAL PRECIP	73.5	59.9													
NO. OBS.	6	6	5	6	4	6	4	4	4	4	4	4	-		
A. MEAN	12.2	10.0	3.97	12.8	3.544	0.4	0.77	1.234	0.15	0.06	0.11	0.096	-		
STD. DEV.	12.1	13.0	4.40	11.2	1.671	0.4	0.67	1.168	0.17	0.06	0.16	0.113	-		
MINIMUM	2.0	0.7	3.80	4.0	2.126	0.1	0.11	0.458	0.02	BDL	BDL	0.020	-		
MAXIMUM	33.2	35.5	4.30	32.6	5.626	1.2	1.51	2.954	0.39	0.13	0.35	0.260	-		
P.W. MEAN			4.02	9.4	2.973	0.2	0.59	1.191	0.13	0.05	0.10	0.089			

PRECIP TYPE

1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN

- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

LONG POINT

SEPTEMBER 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO_4^{2-}	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2
1	7.23	2.06	bd1	bd1	2.39	5.8
2	2.58	1.07	bd1	bd1	0.93	2.3
3	0.55	0.33	bd1	bd1	0.25	bd1
4	0.53	0.53	bd1	bd1	bd1	6.9
5	3.00	1.74	bd1	bd1	0.96	3.8
6	3.18	1.99	0.12	bd1	1.00	7.5
7	0.89	1.35	0.20	bd1	0.31	20.0
8	1.85	2.62	0.17	bd1	0.71	23.6
9	5.69	2.48	bd1	bd1	1.38	9.3
10	14.79	1.32	0.11	0.20	2.46	12.3
11	19.71	1.92	bd1	bd1	3.38	21.6
12	24.05	bd1	bd1	bd1	2.77	35.4
14	9.43	1.72	bd1	bd1	2.62	15.9
14	5.45	2.10	0.12	bd1	1.90	17.8
15	3.42	0.93	0.20	bd1	0.92	52.6
16	0.56	bd1	bd1	bd1	bd1	bd1
17	2.07	0.95	bd1	bd1	0.67	8.5
18	0.30	bd1	bd1	bd1	bd1	bd1
19	1.29	0.95	bd1	bd1	0.45	8.3
20	-	-	-	-	-	-
21	-	-	-	-	-	-
22	-	-	-	-	-	-
23	-	-	-	-	-	-
24	-	-	-	-	-	-
25	7.47	3.51	bd1	bd1	2.82	16.7
26	-	1.34	bd1	bd1	1.59	16.1
27	0.64	0.51	bd1	bd1	0.26	5.9
28	4.46	1.09	0.11	bd1	1.61	3.3
29	2.50	1.28	0.12	bd1	0.94	5.2
30	9.16	1.85	0.14	bd1	2.07	25.1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	24	25	-	-	25	25
A. MEAN	5.45	1.35	-	-	1.30	13.0
S.D.	6.22	0.88	-	-	1.01	12.2
MIN.	0.30	bd1	-	-	bd1	bd1
MAX.	24.05	3.51	-	-	3.38	52.6

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO_4^{2-}	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	ION BAL.	PRECIP TYPE
	STD (mm)	COLL (mm)											RATIO +VE/-VE	
1	6.4	4.9	3.80	11.9	6.601	0.8	1.15	2.020	0.24	0.25	0.12	1.060	0.96	1
3	10.1	3.9	7.40	12.2	5.981	0.9	0.78	8.879	0.28	0.07	1.13	0.064	1.15	1
18	11.1	7.2	4.20	7.0	5.892	0.4	1.45	1.325	0.28	0.06	0.14	0.049	0.94	1
21	7.1	6.5	4.10	5.2	3.323	0.8	0.40	0.791	0.08	0.06	0.07	0.005	0.83	1
22	37.1	36.8	4.30	2.3	1.418	0.4	BDL	0.223	BDL	BDL	BDL	0.008	-	1
24	17.1	13.7	3.90	4.5	3.544	0.2	0.21	0.359	0.03	BDL	0.03	0.162	-	1
26	13.1	13.7	4.90	2.9	1.506	0.4	0.10	0.476	0.02	0.10	0.21	0.001	0.57	1
TOTAL PRECIP 102.0 86.7														
NO. OBS.	7	7	7	7	7	7	7	7	7	7	7	7	-	
A. MEAN	14.6	12.4	4.16	6.6	4.038	0.6	0.58	2.010	0.13	0.08	0.24	0.193	-	
STD. DEV.	10.6	11.5	4.24	4.0	2.153	0.2	0.56	3.093	0.13	0.08	0.40	0.386	-	
MINIMUM	6.4	3.9	3.80	2.3	1.418	0.2	BDL	0.223	BDL	BDL	BDL	0.001	-	
MAXIMUM	37.1	36.8	7.40	12.2	6.601	0.9	1.45	8.879	0.28	0.25	1.13	1.060	-	
P.W. MEAN			4.20	5.0	3.182	0.5	0.38	1.408	0.09	0.05	0.17	0.109		

PRECIP TYPE

1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN

- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

LONG POINT

OCTOBER 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	3.58	1.46	0.11	bd1	1.49	5.4
2	0.97	0.90	0.12	bd1	0.42	10.4
3	6.50	1.63	0.54	bd1	2.60	7.3
4	1.32	1.77	0.27	bd1	0.65	12.4
5	3.07	2.40	0.10	bd1	1.08	10.5
6	15.91	1.67	bd1	bd1	2.74	28.6
7	3.46	1.04	bd1	bd1	0.92	11.4
8	1.44	2.43	0.18	bd1	0.87	9.6
9	2.84	1.20	bd1	bd1	0.74	8.9
10	3.95	1.14	bd1	0.24	1.00	6.6
11	2.77	2.03	bd1	bd1	1.00	18.6
12	2.31	1.45	bd1	bd1	0.75	11.6
13	1.87	1.53	bd1	bd1	0.83	9.8
14	15.56	11.76	bd1	bd1	5.79	56.8
15	0.24	bd1	bd1	bd1	bd1	bd1
16	bd1	bd1	bd1	bd1	bd1	bd1
17	0.39	0.60	bd1	bd1	bd1	7.4
18	2.39	2.02	0.09	bd1	0.73	43.9
19	2.96	2.02	bd1	bd1	0.92	33.4
20	0.98	0.33	bd1	bd1	0.33	6.7
21	0.28	bd1	bd1	bd1	bd1	bd1
22	0.54	bd1	bd1	bd1	0.34	bd1
23	0.83	1.13	bd1	bd1	0.61	bd1
24	1.66	2.56	0.09	bd1	1.19	9.1
25	2.72	6.10	0.16	bd1	2.19	14.0
26	3.37	6.50	bd1	bd1	1.81	10.1
27	4.83	5.69	0.11	bd1	1.75	4.0
28	4.92	3.46	bd1	bd1	1.23	28.2
29	2.40	2.00	0.10	bd1	0.73	20.0
30	2.89	3.02	bd1	bd1	1.59	11.9
31	3.35	3.12	bd1	bd1	1.26	6.7

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	-	31	31
A. MEAN	3.24	2.29	-	-	1.15	13.0
S.D.	3.67	2.41	-	-	1.11	13.0
MIN.	bd1	bd1	-	-	bd1	bd1
MAX.	15.91	11.76	-	-	5.79	56.8

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL.	
	STD (mm)	COLL (mm)											RATIO +VE/-VE	PRECIP TYPE
10	12.4	9.1	3.90	9.5	5.626	0.3	0.81	1.522	0.16	0.14	0.21	0.075	0.93	1
14	3.2	2.0	5.40	13.0	10.942	0.7	-	3.418	-	-	-	-	-	1
31	22.2	20.2	4.20	5.6	3.433	0.3	0.67	0.764	0.16	0.16	0.13	0.032	0.90	1
TOTAL PRECIP	37.8	31.3												
NO. OBS.	3	3	3	3	3	3	2	3	2	2	2	2	2	
A. MEAN	12.6	10.4	4.19	9.4	6.667	0.4	0.74	1.901	0.16	0.15	0.17	0.053	0.92	
STD. DEV.	9.5	9.2	4.21	3.7	3.861	0.3	0.10	1.367	0.00	0.01	0.06	0.030	0.01	
MINIMUM	3.2	2.0	3.90	5.6	3.433	0.3	0.67	0.764	0.16	0.14	0.13	0.032	0.90	
MAXIMUM	22.2	20.2	5.40	13.0	10.942	0.7	0.81	3.418	0.16	0.16	0.21	0.075	0.93	
P.W. MEAN			4.10	7.5	4.788	0.3	0.72	1.237	0.16	0.15	0.16	0.047		

PRECIP TYPE

1 - RAIN

2 - SNOW

3 - MIXED

4 - UNCERTAIN

- - MISSING DATA

BDL - BELOW DETECTION LIMIT

LONG POINT

NOVEMBER 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	SO ₂
1	1.80	1.79	bd1	bd1	0.78	13.6
2	2.11	2.06	bd1	bd1	0.99	4.7
3	1.15	0.83	bd1	bd1	0.56	bd1
4	1.09	1.26	bd1	bd1	0.62	4.7
5	0.90	0.38	bd1	bd1	0.21	2.9
6	1.96	1.33	bd1	bd1	0.78	9.6
7	1.18	1.16	bd1	bd1	0.45	36.3
8	1.72	2.16	bd1	bd1	0.93	10.0
9	1.07	1.14	0.12	bd1	0.51	16.4
10	1.65	1.31	0.10	bd1	0.74	13.2
11	4.19	1.83	0.11	bd1	1.50	17.1
12	1.21	0.36	0.11	bd1	0.28	5.2
13	0.36	bd1	bd1	bd1	bd1	2.1
14	2.06	1.00	bd1	bd1	0.59	14.8
15	0.85	1.06	bd1	bd1	0.27	11.8
16	1.58	1.68	bd1	bd1	0.78	36.8
17	3.64	3.55	0.16	bd1	1.76	34.7
18	3.87	4.39	0.30	bd1	2.23	17.3
19	2.57	2.41	0.11	bd1	1.06	14.0
20	2.76	0.66	bd1	bd1	0.60	7.8
21	1.00	0.82	bd1	bd1	0.49	4.3
22	1.56	2.07	0.30	bd1	0.84	17.4
23	0.63	bd1	bd1	bd1	0.24	6.8
24	0.58	0.70	bd1	bd1	0.29	4.0
25	0.74	1.21	0.09	bd1	0.33	11.3
26	1.25	0.38	bd1	bd1	0.39	9.7
27	0.66	0.38	0.13	bd1	0.21	3.3
28	1.26	0.58	bd1	bd1	0.37	11.8
29	0.45	bd1	bd1	bd1	0.24	14.6
30	-	-	-	-	-	-

bd1 - BELOW DETECTION LIMIT

NO. OBS.	29	29	-	-	29	29
A. MEAN	1.58	1.26	-	-	0.66	12.3
S.D.	1.00	1.01	-	-	0.49	9.6
MIN.	0.36	bd1	-	-	bd1	bd1
MAX.	4.19	4.39	-	-	2.23	36.8

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO4=	NO3-	Cl-	Ca++	NH4+	Mg++	Na+	K+	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)											+VE/-VE		
1	33.1	34.5	4.30	2.7	1.240	0.1	0.09	0.288	0.03	0.12	BDL	0.013	-		1
2	7.4	7.2	4.10	2.8	3.119	0.2	0.14	0.286	0.03	0.07	BDL	0.005	-		1
3	20.1	18.9	4.40	1.5	1.506	BDL	BDL	0.187	BDL	BDL	BDL	0.003	-		1
10	22.0	12.4	4.00	6.1	5.582	0.5	0.77	0.864	0.14	0.29	0.07	0.011	0.92		1
11	12.3	11.1	4.20	3.6	1.861	0.1	0.13	0.366	0.03	0.07	0.02	0.004	0.88		1
12	4.1	2.0	3.60	6.7	2.888	0.8	0.54	0.451	0.13	-	-	0.009	-		1
20 (2)	25.0	22.1	4.20	3.5	1.728	0.2	0.20	0.223	0.04	0.05	0.03	0.006	-		1
27 (2)	38.3	32.6	4.10	3.1	2.352	0.1	0.06	0.344	0.02	BDL	BDL	0.006	-		1
TOTAL PRECIP	99.0	86.1													
NO. OBS.	6	6	6	6	6	6	6	6	6	5	5	6	-		
A. MEAN	16.5	14.3	4.01	3.9	2.699	0.3	0.28	0.407	0.06	0.11	0.02	0.007	-		
STD. DEV.	10.7	11.4	4.11	2.1	1.599	0.3	0.30	0.241	0.06	0.11	0.03	0.004	-		
MINIMUM	4.1	2.0	3.60	1.5	1.240	BDL	BDL	0.187	BDL	BDL	BDL	0.003	-		
MAXIMUM	33.1	34.5	4.40	6.7	5.582	0.8	0.77	0.864	0.14	0.29	0.07	0.013	-		
P.W. MEAN			4.15	3.5	2.545	0.2	0.25	0.412	0.05	0.12	0.02	0.009			

PRECIP TYPE

1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN

- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

DAY () - DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

APPENDIX 5

MONTHLY SUMMARIES OF MEASURED CONCENTRATIONS IN AIR AND PRECIPITATION AT LONGWOODS

DATE	AIR		PRECIPITATION		TOTAL		AVERAGE		STANDARD DEVIATION		COEFFICIENT OF VARIATION	
	1974	1975	1974	1975	1974	1975	1974	1975	1974	1975	1974	1975
1	1.8	2.2	0.15	0.2	1.95	2.4	0.15	0.2	0.15	0.2	0.15	0.2
2	1.5	1.8	0.1	0.15	1.6	1.95	0.1	0.15	0.1	0.15	0.1	0.15
3	2.0	2.5	0.2	0.25	2.2	2.75	0.2	0.25	0.2	0.25	0.2	0.25
4	1.2	1.5	0.05	0.1	1.25	1.6	0.05	0.1	0.05	0.1	0.05	0.1
5	2.5	3.0	0.3	0.35	2.8	3.35	0.3	0.35	0.3	0.35	0.3	0.35
6	1.0	1.2	0.08	0.12	1.08	1.32	0.08	0.12	0.08	0.12	0.08	0.12
7	1.8	2.0	0.18	0.22	1.98	2.22	0.18	0.22	0.18	0.22	0.18	0.22
8	1.5	1.8	0.12	0.18	1.62	1.98	0.12	0.18	0.12	0.18	0.12	0.18
9	2.2	2.8	0.25	0.32	2.45	3.12	0.25	0.32	0.25	0.32	0.25	0.32
10	1.0	1.2	0.05	0.1	1.05	1.3	0.05	0.1	0.05	0.1	0.05	0.1
11	1.8	2.0	0.18	0.22	1.98	2.22	0.18	0.22	0.18	0.22	0.18	0.22
12	1.5	1.8	0.12	0.18	1.62	1.98	0.12	0.18	0.12	0.18	0.12	0.18
13	2.0	2.5	0.2	0.25	2.2	2.75	0.2	0.25	0.2	0.25	0.2	0.25
14	1.2	1.5	0.05	0.1	1.25	1.6	0.05	0.1	0.05	0.1	0.05	0.1
15	2.5	3.0	0.3	0.35	2.8	3.35	0.3	0.35	0.3	0.35	0.3	0.35
16	1.0	1.2	0.05	0.1	1.05	1.3	0.05	0.1	0.05	0.1	0.05	0.1
17	1.8	2.0	0.18	0.22	1.98	2.22	0.18	0.22	0.18	0.22	0.18	0.22
18	1.5	1.8	0.12	0.18	1.62	1.98	0.12	0.18	0.12	0.18	0.12	0.18
19	2.0	2.5	0.2	0.25	2.2	2.75	0.2	0.25	0.2	0.25	0.2	0.25
20	1.2	1.5	0.05	0.1	1.25	1.6	0.05	0.1	0.05	0.1	0.05	0.1
21	2.5	3.0	0.3	0.35	2.8	3.35	0.3	0.35	0.3	0.35	0.3	0.35
22	1.0	1.2	0.05	0.1	1.05	1.3	0.05	0.1	0.05	0.1	0.05	0.1
23	1.8	2.0	0.18	0.22	1.98	2.22	0.18	0.22	0.18	0.22	0.18	0.22
24	1.5	1.8	0.12	0.18	1.62	1.98	0.12	0.18	0.12	0.18	0.12	0.18
25	2.0	2.5	0.2	0.25	2.2	2.75	0.2	0.25	0.2	0.25	0.2	0.25
26	1.2	1.5	0.05	0.1	1.25	1.6	0.05	0.1	0.05	0.1	0.05	0.1
27	2.5	3.0	0.3	0.35	2.8	3.35	0.3	0.35	0.3	0.35	0.3	0.35
28	1.0	1.2	0.05	0.1	1.05	1.3	0.05	0.1	0.05	0.1	0.05	0.1
29	1.8	2.0	0.18	0.22	1.98	2.22	0.18	0.22	0.18	0.22	0.18	0.22
30	1.5	1.8	0.12	0.18	1.62	1.98	0.12	0.18	0.12	0.18	0.12	0.18
31	2.0	2.5	0.2	0.25	2.2	2.75	0.2	0.25	0.2	0.25	0.2	0.25
32	1.2	1.5	0.05	0.1	1.25	1.6	0.05	0.1	0.05	0.1	0.05	0.1
33	2.5	3.0	0.3	0.35	2.8	3.35	0.3	0.35	0.3	0.35	0.3	0.35
34	1.0	1.2	0.05	0.1	1.05	1.3	0.05	0.1	0.05	0.1	0.05	0.1
35	1.8	2.0	0.18	0.22	1.98	2.22	0.18	0.22	0.18	0.22	0.18	0.22
36	1.5	1.8	0.12	0.18	1.62	1.98	0.12	0.18	0.12	0.18	0.12	0.18
37	2.0	2.5	0.2	0.25	2.2	2.75	0.2	0.25	0.2	0.25	0.2	0.25
38	1.2	1.5	0.05	0.1	1.25	1.6	0.05	0.1	0.05	0.1	0.05	0.1
39	2.5	3.0	0.3	0.35	2.8	3.35	0.3	0.35	0.3	0.35	0.3	0.35
40	1.0	1.2	0.05	0.1	1.05	1.3	0.05	0.1	0.05	0.1	0.05	0.1
41	1.8	2.0	0.18	0.22	1.98	2.22	0.18	0.22	0.18	0.22	0.18	0.22
42	1.5	1.8	0.12	0.18	1.62	1.98	0.12	0.18	0.12	0.18	0.12	0.18
43	2.0	2.5	0.2	0.25	2.2	2.75	0.2	0.25	0.2	0.25	0.2	0.25
44	1.2	1.5	0.05	0.1	1.25	1.6	0.05	0.1	0.05	0.1	0.05	0.1
45	2.5	3.0	0.3	0.35	2.8	3.35	0.3	0.35	0.3	0.35	0.3	0.35
46	1.0	1.2	0.05	0.1	1.05	1.3	0.05	0.1	0.05	0.1	0.05	0.1
47	1.8	2.0	0.18	0.22	1.98	2.22	0.18	0.22	0.18	0.22	0.18	0.22
48	1.5	1.8	0.12	0.18	1.62	1.98	0.12	0.18	0.12	0.18	0.12	0.18
49	2.0	2.5	0.2	0.25	2.2	2.75	0.2	0.25	0.2	0.25	0.2	0.25
50	1.2	1.5	0.05	0.1	1.25	1.6	0.05	0.1	0.05	0.1	0.05	0.1
51	2.5	3.0	0.3	0.35	2.8	3.35	0.3	0.35	0.3	0.35	0.3	0.35
52	1.0	1.2	0.05	0.1	1.05	1.3	0.05	0.1	0.05	0.1	0.05	0.1

LONGWOODS (DECEMBER 1982)
-3 -1
PRECIPITATION CONCENTRATIONS (10⁻³ gl⁻¹)

DAY	AMOUNT		PH	SO4=	NO3-	Cl-	Ca++	NH4+	Mg++	Na+	K+	TOT P	ION BAL.	PRECIP TYPE
	STD (mm)	COLL (mm)											RATIO +VE/-VE	
8	7.8	6.6	6.40	2.1	2.902	0.3	1.39	0.542	0.23	0.09	0.15	0.083	1.14	2
12	0.6	0.3	-	6.9	-	1.6	-	-	-	-	-	-	-	2
15	20.0	20.2	4.60	1.9	1.076	0.1	0.16	0.168	0.02	0.05	0.06	0.014	0.81	2
18	4.2	3.3	3.80	7.4	9.746	0.6	1.34	1.222	0.22	0.20	0.10	-	0.98	4
19	20.4	18.6	4.50	1.3	1.165	BDL	0.08	0.169	0.01	0.02	BDL	0.007	-	4
20	0.6	0.5	-	-	-	-	-	-	-	-	-	-	-	2
21	0.2	0.3	-	-	-	-	-	-	-	-	-	-	-	2
23	4.6	4.8	4.10	4.1	2.950	0.4	0.27	0.622	0.04	0.22	0.10	0.011	0.99	4
24	17.2	17.5	4.50	2.1	0.682	0.3	0.08	0.175	0.03	0.22	0.03	0.003	0.91	1
25	0.3	1.0	4.40	2.5	0.948	0.4	-	0.415	-	-	-	-	-	1
27	7.0	7.4	4.40	2.1	0.948	0.2	0.10	0.182	0.02	0.10	0.08	0.003	0.98	1
TOTAL PRECIP	82.9	80.5												
NO. OBS.	11	11	8	9	8	9	7	8	7	7	7	6	-	
A. MEAN	7.5	7.3	4.29	3.4	2.552	0.4	0.49	0.437	0.08	0.13	0.07	0.020	-	
STD. DEV.	8.0	7.8	4.31	2.3	3.042	0.5	0.60	0.366	0.10	0.08	0.05	0.031	-	
MINIMUM	0.2	0.3	3.80	1.3	0.682	BDL	0.08	0.168	0.01	0.02	BDL	0.003	-	
MAXIMUM	20.4	20.2	6.40	7.4	9.746	1.6	1.39	1.222	0.23	0.22	0.15	0.083	-	
P.W. MEAN			4.43	2.3	1.731	0.2	0.30	0.288	0.05	0.10	0.05	0.016		

PRECIP TYPE
1 - RAIN
2 - SNOW
3 - MIXED
4 - UNCERTAIN

- - MISSING DATA
BDL - BELOW DETECTION LIMIT

MONTHLY SUMMARIES OF MEASURED CONCENTRATIONS
IN AIR AND PRECIPITATION AT MONTMORENCY FOREST

MONTMORENCY FOREST

JANUARY 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	SO ₂
1	1.03	0.42	0.16	0.08	bd1	3.1
2	1.04	0.26	0.31	0.11	0.37	2.3
3	1.81	0.85	bd1	bd1	0.44	3.3
4	0.92	0.43	bd1	bd1	bd1	2.3
5	0.91	0.25	0.30	0.14	0.36	2.9
6	1.32	1.01	bd1	0.08	0.50	4.9
7	1.27	0.36	bd1	0.14	0.33	3.0
8	1.18	bd1	bd1	0.29	bd1	1.6
9	bd1	bd1	bd1	bd1	bd1	0.9
10	1.05	0.31	bd1	0.09	0.43	5.1
11	0.85	0.70	bd1	0.13	0.39	7.1
12	bd1	0.25	0.87	0.64	bd1	3.3
13	bd1	bd1	bd1	bd1	bd1	1.9
14	bd1	bd1	bd1	bd1	bd1	3.5
15	bd1	bd1	0.11	0.11	bd1	1.4
16	1.43	0.34	bd1	0.15	0.51	13.2
17	bd1	bd1	0.51	0.31	0.33	4.3
18	bd1	bd1	0.30	0.25	bd1	3.1
19	bd1	bd1	0.13	0.09	bd1	1.1
20	0.75	bd1	bd1	0.07	bd1	5.4
21	bd1	bd1	0.10	0.08	bd1	1.4
22	bd1	bd1	bd1	0.10	bd1	1.1
23	0.88	0.22	bd1	0.07	bd1	2.5
24	2.58	0.44	bd1	0.15	0.78	8.0
25	0.82	bd1	bd1	0.21	bd1	1.7
26	0.91	bd1	0.13	0.11	bd1	1.3
27	1.36	0.64	0.37	0.33	0.42	4.9
28	bd1	0.46	bd1	bd1	0.36	11.3
29	0.92	0.25	0.28	0.20	0.37	4.8
30	1.14	0.63	bd1	0.07	0.57	8.0
31	bd1	bd1	bd1	bd1	0.38	2.2

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	31	-	31
A. MEAN	0.72	0.25	-	0.13	-	3.9
S.D.	0.67	0.29	-	0.13	-	3.0
MIN.	bd1	bd1	-	bd1	-	0.9
MAX.	2.58	1.01	-	0.64	-	13.2

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO PRECIP	
	STD (mm)	COLL (mm)											+VE/-VE	TYPE
1	15.8	-	5.60	0.3	0.917	0.1	0.06	0.083	BDL	0.09	BDL	0.003	-	2
4	32.6	-	5.30	BDL	0.421	0.1	0.04	0.022	BDL	0.10	BDL	0.001	-	2
5	0.6	-	-	1.2	-	2.3	-	-	-	-	-	-	-	2
6	3.4	-	5.10	BDL	3.269	0.6	0.24	0.017	0.04	0.46	0.03	-	-	2
7	0.4	-	-	-	-	-	-	-	-	-	-	-	-	2
8	0.2	-	-	-	-	-	-	-	-	-	-	-	-	2
10	0.9	-	6.40	1.1	-	2.7	-	-	-	-	-	-	-	2
11	0.4	-	-	BDL	-	1.0	-	-	-	-	-	-	-	2
13	0.3	-	-	1.8	-	3.2	-	-	-	-	-	-	-	2
14	1.3	-	-	0.5	-	0.5	-	-	-	-	-	-	-	2
15	0.4	-	-	1.2	-	4.1	-	-	-	-	-	-	-	2
16	5.0	-	5.40	0.3	0.665	0.5	0.07	0.130	0.02	0.58	BDL	0.012	-	2
17	1.1	-	6.20	0.4	-	0.9	-	-	-	-	-	-	-	2
19	0.2	-	-	-	-	-	-	-	-	-	-	-	-	2
22	0.7	0.5	6.70	0.2	-	0.3	-	-	-	-	-	-	-	2
23	16.2	11.7	4.80	BDL	1.085	0.1	0.03	0.019	BDL	0.10	BDL	0.001	-	2
24	1.9	0.7	6.40	0.8	-	0.8	-	-	-	-	-	-	-	2
25	0.2	BDL	-	-	-	-	-	-	-	-	-	-	-	2
28	5.8	2.4	4.10	1.4	5.626	0.5	0.35	0.177	0.04	0.35	0.02	0.008	0.93	2
30	5.1	4.2	4.50	0.8	1.360	0.1	0.07	0.067	BDL	0.07	BDL	0.002	-	2
31	19.1	5.2	5.00	BDL	0.753	0.1	0.10	BDL	BDL	0.23	BDL	0.007	-	2
TOTAL PRECIP 111.6 24.7														
NO. OBS.	21	-	12	17	8	17	8	8	8	8	8	7	-	
A. MEAN	5.3	-	4.88	0.6	1.762	1.1	0.12	0.064	0.01	0.25	0.01	0.005	-	
STD. DEV.	8.5	-	4.64	0.6	1.795	1.2	0.11	0.063	0.02	0.20	0.01	0.004	-	
MINIMUM	0.2	-	4.10	BDL	0.421	0.1	0.03	BDL	BDL	0.07	BDL	0.001	-	
MAXIMUM	32.6	-	6.70	1.8	5.626	4.1	0.35	0.177	0.04	0.58	0.03	0.012	-	
P.W. MEAN			4.91	0.2	1.109	0.2	0.08	0.043	0.00	0.17	0.00	0.003		

PRECIP TYPE

- 1 - RAIN
2 - SNOW
3 - MIXED
4 - UNCERTAIN

- - MISSING DATA
BDL - BELOW DETECTION LIMIT

MONTMORENCY FOREST

FEBRUARY 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO_4^{2-}	NO_3^-	Cl^-	Na^+	NH_4^+	
1	bd1	bd1	bd1	bd1	bd1	2.6
2	bd1	0.52	bd1	bd1	bd1	3.5
3	bd1	0.47	bd1	bd1	bd1	2.8
4	1.40	bd1	bd1	0.07	0.35	2.6
5	bd1	0.23	bd1	0.09	bd1	1.7
6	1.83	0.29	bd1	0.12	0.41	8.2
7	3.59	0.96	bd1	0.14	0.87	69.0
8	1.50	0.22	bd1	0.12	0.45	5.3
9	1.86	0.57	bd1	0.12	0.48	5.7
10	bd1	0.57	0.14	0.17	bd1	6.7
11	1.22	0.79	bd1	0.07	0.46	11.2
12	2.17	1.47	0.16	0.16	0.64	9.5
13	3.11	0.97	bd1	0.10	0.72	8.9
14	1.44	0.26	bd1	0.07	bd1	5.6
15	5.82	1.88	bd1	0.10	0.99	18.3
16	1.15	bd1	bd1	bd1	bd1	0.8
17	1.47	0.32	0.15	0.15	bd1	2.9
18	bd1	0.26	bd1	0.08	bd1	1.3
19	2.23	0.58	bd1	0.08	0.31	4.9
20	1.82	0.28	bd1	0.06	bd1	3.2
21	bd1	bd1	bd1	bd1	bd1	bd1
22	bd1	bd1	0.17	0.13	bd1	1.0
23	0.98	0.21	0.29	0.23	bd1	3.3
24	bd1	bd1	bd1	bd1	bd1	1.2
25	bd1	bd1	bd1	bd1	bd1	4.3
26	0.76	bd1	bd1	bd1	bd1	2.4
27	1.40	bd1	bd1	0.11	bd1	2.1
28	1.28	bd1	bd1	0.09	bd1	2.3

bd1 - BELOW DETECTION LIMIT

NO. OBS.	28	28	-	28	-	28
A. MEAN	1.25	0.39	-	0.08	-	6.8
S.D.	1.34	0.47	-	0.06	-	12.8
MIN.	bd1	bd1	-	bd1	-	bd1
MAX.	5.82	1.88	-	0.23	-	69.0

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO_4^{2-}	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)											+VE/-VE		
3	8.8	8.5	4.90	0.7	0.656	0.3	0.04	0.005	BDL	0.18	BDL	0.006	-		2
5	5.8	5.0	4.70	0.6	1.094	0.2	0.01	0.004	BDL	0.25	BDL	0.004	-		2
6	0.4	BDL	-	-	-	-	-	-	-	-	-	-	-		2
7	2.8	BDL	-	-	-	-	-	-	-	-	-	-	-		2
9	1.4	BDL	-	-	-	-	-	-	-	-	-	-	-		2
10	0.3	1.3	4.50	0.8	2.149	0.5	-	0.009	-	-	-	-	-		2
11	0.4	BDL	-	-	-	-	-	-	-	-	-	-	-		2
14	1.4	1.0	4.20	1.0	5.670	0.6	-	0.086	-	-	-	-	-		2
15	2.2	0.7	4.10	4.0	6.375	1.0	-	0.147	-	-	-	-	-		2
16	0.1	BDL	-	-	-	-	-	-	-	-	-	-	-		2
19	0.6	BDL	-	-	-	-	-	-	-	-	-	-	-		2
21	1.5	0.3	5.80	5.2	-	3.2	-	-	-	-	-	-	-		2
22	3.8	2.3	5.20	0.4	0.159	0.2	0.02	0.005	BDL	0.05	BDL	0.003	-		2
23	1.4	0.7	4.90	0.8	0.527	0.5	-	0.005	-	-	-	-	-		2
24	0.2	BDL	-	-	-	-	-	-	-	-	-	-	-		2
25	0.4	BDL	-	-	-	-	-	-	-	-	-	-	-		2
TOTAL PRECIP	31.5	19.8													
NO. OBS.	16	16	8	8	-	8	-	-	-	-	-	-	-		
A. MEAN	2.0	1.2	4.55	1.7	-	0.8	-	-	-	-	-	-	-		
STD. DEV.	2.4	2.3	4.55	1.8	-	1.0	-	-	-	-	-	-	-		
MINIMUM	0.1	BDL	4.10	0.4	-	0.2	-	-	-	-	-	-	-		
MAXIMUM	8.8	8.5	5.80	5.2	-	3.2	-	-	-	-	-	-	-		
P.W. MEAN			4.67	1.2	-	0.5	-	-	-	-	-	-	-		

PRECIP TYPE

1 - RAIN

- - MISSING DATA

2 - SNOW

BDL - BELOW DETECTION LIMIT

3 - MIXED

4 - UNCERTAIN

MONTMORENCY FOREST

MARCH 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	1.09	0.58	bd1	0.08	bd1	3.7
2	2.57	0.63	0.13	0.21	0.46	9.4
3	1.29	bd1	0.19	0.16	bd1	2.9
4	1.38	0.21	bd1	0.09	bd1	11.8
5	1.79	0.22	bd1	0.14	bd1	8.3
6	2.51	0.40	bd1	0.12	0.43	8.6
7	2.99	bd1	bd1	0.12	0.40	4.3
8	1.36	bd1	0.15	0.16	bd1	1.6
9	1.09	0.22	bd1	0.11	bd1	1.5
10	4.00	1.01	bd1	0.07	0.55	11.5
11	1.34	0.61	bd1	bd1	bd1	8.3
12	6.76	0.81	bd1	bd1	0.71	4.1
13	3.25	1.51	bd1	bd1	0.56	3.3
14	1.47	bd1	bd1	0.07	bd1	0.6
15	1.04	0.21	bd1	bd1	bd1	1.7
16	bd1	0.21	bd1	bd1	bd1	0.6
17	bd1	0.29	bd1	bd1	bd1	bd1
18	0.76	0.28	bd1	bd1	bd1	3.4
19	bd1	0.34	0.15	0.15	bd1	1.9
20	bd1	bd1	bd1	bd1	bd1	bd1
21	0.84	bd1	bd1	bd1	bd1	1.0
22	1.30	bd1	bd1	bd1	bd1	1.7
23	1.40	0.23	bd1	bd1	bd1	1.5
24	2.85	1.60	bd1	bd1	0.98	9.6
25	1.51	0.94	bd1	bd1	0.59	11.5
26	0.93	0.39	bd1	bd1	bd1	1.3
27	-	0.37	bd1	0.15	bd1	1.0
28	1.37	0.26	bd1	0.11	bd1	2.1
29	3.03	0.70	bd1	0.09	0.72	7.4
30	2.64	0.70	bd1	0.06	0.68	5.1
31	1.66	1.26	bd1	bd1	0.43	3.5

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	31	-	31	-	31
A. MEAN	1.74	0.45	-	0.06	-	4.3
S.D.	1.39	0.44	-	0.07	-	3.7
MIN.	bd1	bd1	-	bd1	-	bd1
MAX.	6.76	1.60	-	0.21	-	11.8

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO4=	NO3-	Cl-	Ca++	NH4+	Mg++	Na+	K+	TOT P	ION BAL.	PRECIP
	STD (mm)	COLL (mm)											RATIO +VE/-VE	TYPE
1	2.2	2.0	4.00	0.8	7.088	0.2	0.08	0.095	0.02	0.15	BDL	0.004	-	2
2	0.6	BDL	-	-	-	-	-	-	-	-	-	-	-	2
4	10.0	7.2	4.50	0.8	1.249	0.2	BDL	0.014	BDL	0.02	BDL	0.003	-	2
6	6.4	5.9	4.80	0.7	0.651	0.3	0.11	0.001	0.01	0.15	BDL	0.002	-	2
7	8.3	6.8	5.00	0.5	0.235	0.2	0.02	BDL	BDL	0.04	0.02	0.003	-	2
9	0.4	0.3	-	-	-	-	-	-	-	-	-	-	-	2
10	7.5	5.7	4.00	2.2	3.721	BDL	0.06	0.249	BDL	0.03	BDL	0.001	-	2
11	7.4	7.2	3.80	5.3	4.297	0.5	0.14	0.651	0.02	0.20	0.04	0.004	1.10	4
13	10.5	8.1	4.30	2.3	0.930	0.3	0.09	0.213	0.01	0.06	BDL	0.003	-	4
14	2.2	BDL	-	-	-	-	-	-	-	-	-	-	-	2
21	5.5	1.6	4.40	1.0	-	0.4	0.13	-	0.01	0.29	0.09	-	-	2
22	2.1	1.0	4.40	1.6	-	0.5	0.14	-	0.02	0.27	BDL	-	-	2
25	3.4	3.6	3.70	6.1	5.360	0.9	0.36	0.528	0.06	0.44	BDL	0.003	-	4
26	26.8	12.1	4.30	1.7	0.709	0.3	0.10	0.114	0.01	0.08	BDL	0.002	-	4
27	0.5	BDL	-	-	-	-	-	-	-	-	-	-	-	2
28	0.8	BDL	-	-	-	-	-	-	-	-	-	-	-	2
31	16.3	14.7	4.30	1.4	1.462	0.3	0.08	0.154	0.01	0.08	BDL	0.005	-	4
TOTAL PRECIP 110.9 76.2														
NO. OBS.	17	17	12	12	10	12	12	10	12	12	12	10	-	-
A. MEAN	6.5	4.5	4.15	2.0	2.570	0.3	0.11	0.202	0.01	0.15	0.01	0.003	-	-
STD. DEV.	6.8	4.5	4.23	1.8	2.375	0.2	0.09	0.223	0.02	0.13	0.03	0.001	-	-
MINIMUM	0.4	BDL	3.70	0.5	0.235	BDL	BDL	BDL	BDL	0.02	BDL	0.001	-	-
MAXIMUM	26.8	14.7	5.00	6.1	7.088	0.9	0.36	0.651	0.06	0.44	0.09	0.005	-	-
P.W. MEAN			4.23	1.8	1.667	0.3	0.09	0.168	0.01	0.11	0.01	0.003	-	-

PRECIP TYPE

- 1 - RAIN
2 - SNOW
3 - MIXED
4 - UNCERTAIN
- - MISSING DATA
BDL - BELOW DETECTION LIMIT

MONTMORENCY FOREST

APRIL 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2
1	1.78	bd1	0.16	0.17	bd1	bd1
2	0.97	bd1	0.11	0.10	bd1	bd1
3	1.12	bd1	bd1	bd1	bd1	0.8
4	1.41	0.26	bd1	bd1	bd1	1.7
5	1.83	bd1	0.10	0.11	bd1	bd1
6	1.68	bd1	0.13	0.15	bd1	0.7
7	1.48	bd1	bd1	0.13	bd1	bd1
8	bd1	bd1	bd1	bd1	bd1	0.7
9	0.99	bd1	bd1	bd1	bd1	bd1
10	1.26	bd1	0.25	0.30	bd1	0.9
11	2.96	0.33	bd1	0.12	0.62	3.1
12	1.94	bd1	bd1	bd1	0.33	0.9
13	1.75	0.28	bd1	0.10	0.43	4.6
14	bd1	0.30	bd1	bd1	bd1	0.6
15	1.91	0.94	bd1	0.10	0.49	3.6
16	2.28	1.93	bd1	0.06	0.88	11.1
17	4.17	2.10	0.20	0.25	1.35	1.3
18	1.12	bd1	bd1	0.07	bd1	0.9
19	0.92	0.42	bd1	0.15	bd1	2.8
20	1.76	1.12	bd1	0.12	0.48	1.0
21	1.38	0.49	bd1	bd1	bd1	1.7
22	0.74	bd1	bd1	bd1	bd1	0.7
23	1.78	0.26	bd1	bd1	bd1	2.3
24	1.42	0.81	bd1	bd1	0.44	2.2
25	8.03	3.14	bd1	bd1	2.30	11.1
26	7.04	2.67	0.11	0.10	2.01	7.2
27	2.19	0.34	bd1	bd1	bd1	0.7
28	1.73	bd1	bd1	0.07	bd1	1.1
29	1.43	bd1	bd1	bd1	bd1	0.5
30	0.74	bd1	bd1	bd1	bd1	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	30	-	30	-	30
A. MEAN	1.93	0.51	-	0.07	-	2.1
S.D.	1.72	0.85	-	0.08	-	2.9
MIN.	bd1	bd1	-	bd1	-	bd1
MAX.	8.03	3.14	-	0.30	-	11.1

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	ION BAL. RATIO +VE/-VE	PRECIP TYPE
	STD (mm)	COLL (mm)												
1	1.6	BDL	-	-	-	-	-	-	-	-	-	-	-	2
3	12.0	7.5	4.50	0.5	0.842	0.2	BDL	BDL	BDL	0.02	BDL	0.002	-	2
4	3.4	0.7	5.50	0.9	-	0.3	0.21	-	0.04	-	-	-	-	2
6	2.8	0.3	5.50	BDL	-	0.9	-	-	-	-	-	-	-	2
7	5.2	BDL	-	-	-	-	-	-	-	-	-	-	-	2
8	1.9	BDL	-	-	-	-	-	-	-	-	-	-	-	2
12	0.2	BDL	-	-	-	-	-	-	-	-	-	-	-	2
13	22.0	14.0	4.50	0.5	0.886	0.2	BDL	0.077	BDL	0.05	BDL	0.001	-	2
14	0.4	BDL	-	-	-	-	-	-	-	-	-	-	-	2
17	18.6	19.5	4.20	3.0	1.683	0.2	0.17	0.537	0.03	0.14	0.02	0.004	1.15	4
18	4.0	0.3	-	3.1	-	1.3	-	-	-	-	-	-	-	2
19	2.2	1.3	4.00	6.1	8.240	0.4	-	0.130	-	-	-	-	-	2
20	12.1	0.3	3.70	8.3	0.266	0.5	-	0.050	-	-	-	-	-	4
21	3.4	1.3	4.20	3.4	2.968	0.2	0.17	0.115	0.03	-	-	-	-	2
22	1.0	2.6	5.00	1.9	-	0.7	0.18	-	0.03	-	-	-	-	2
26	3.6	3.9	4.10	3.5	1.108	0.2	0.16	0.729	0.03	0.16	0.02	0.036	1.42	2
30	1.0	1.3	4.80	0.9	0.443	0.2	0.16	0.032	0.02	0.09	BDL	-	-	2
TOTAL PRECIP														
NO. OBS.														
A. MEAN														
STD. DEV.														
MINIMUM														
MAXIMUM														
P.W. MEAN														

PRECIP TYPE

1 - RAIN
2 - SNOW
3 - MIXED
4 - UNCERTAIN

- - MISSING DATA
BDL - BELOW DETECTION LIMIT

MONTMORENCY FOREST

MAY 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	SO ₂
1	0.78	bd1	bd1	bd1	bd1	bd1
2	1.71	0.31	bd1	bd1	0.41	1.3
3	bd1	bd1	bd1	bd1	bd1	bd1
4	0.80	bd1	bd1	bd1	bd1	bd1
5	1.49	0.39	bd1	0.13	0.45	1.5
6	5.98	1.81	bd1	0.06	1.32	6.3
7	11.04	2.65	bd1	0.08	3.56	10.0
8	7.29	2.31	bd1	bd1	1.66	4.7
9	bd1	bd1	bd1	bd1	bd1	0.8
10	bd1	bd1	bd1	bd1	bd1	bd1
11	0.72	bd1	bd1	bd1	bd1	bd1
12	1.62	0.47	0.12	0.12	bd1	0.7
13	bd1	bd1	bd1	bd1	bd1	0.7
14	bd1	bd1	bd1	bd1	bd1	bd1
15	bd1	bd1	bd1	0.10	bd1	bd1
16	bd1	bd1	bd1	bd1	bd1	1.1
17	0.76	bd1	bd1	bd1	bd1	bd1
18	0.81	bd1	bd1	bd1	bd1	1.4
19	3.33	0.98	bd1	bd1	1.25	1.8
20	0.81	bd1	bd1	bd1	bd1	bd1
21	0.93	bd1	bd1	bd1	bd1	bd1
22	0.98	0.19	bd1	bd1	bd1	0.6
23	1.56	0.50	bd1	0.07	0.60	2.2
24	1.32	0.59	bd1	bd1	0.44	1.8
25	2.59	0.45	0.15	0.17	0.60	1.3
26	0.83	0.31	bd1	bd1	bd1	0.9
27	bd1	0.24	0.15	0.11	bd1	1.3
28	3.45	1.01	bd1	0.13	0.83	3.1
29	3.62	0.98	bd1	0.13	1.06	3.0
30	1.30	0.28	0.11	0.11	0.34	1.7
31	bd1	0.37	bd1	bd1	bd1	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	-	-	31
A. MEAN	1.73	0.45	-	-	-	1.5
S.D.	2.45	0.68	-	-	-	2.1
MIN.	bd1	bd1	-	-	-	bd1
MAX.	11.04	2.65	-	-	-	10.0

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO4=	NO3-	Cl-	Ca++	NH4+	Mg++	Na+	K+	TOT P	ION BAL.	PRECIP
	STD (mm)	COLL (mm)											RATIO +VE/-VE	TYPE
1	BDL	0.3	4.50	2.8	-	0.2	-	-	-	-	-	-	-	2
2	0.2	BDL	-	6.3	-	0.9	-	-	-	-	-	-	-	4
8	9.0	9.3	3.80	6.2	2.760	0.2	0.35	0.882	BDL	0.07	0.03	0.004	-	4
9	14.8	13.7	4.40	1.3	0.217	0.1	0.10	0.083	BDL	0.19	BDL	0.001	-	4
19	9.2	9.4	3.80	5.8	2.880	0.2	0.27	0.806	BDL	0.06	0.03	0.003	-	1
20	4.8	5.4	4.60	0.9	0.323	0.1	0.06	0.083	BDL	0.12	BDL	0.002	-	1
30	0.2	BDL	-	1.4	-	0.5	-	-	-	-	-	-	-	1
31	0.6	0.3	4.40	4.1	-	0.2	-	-	-	-	-	-	-	1
TOTAL PRECIP	38.8	38.4												
NO. OBS.	8	8	6	8	4	8	4	4	4	4	4	4	-	
A. MEAN	4.8	4.8	4.12	3.6	1.545	0.3	0.19	0.463	0.00	0.11	0.01	0.002	-	
STD. DEV.	5.6	5.4	4.19	2.3	1.474	0.3	0.14	0.440	0.00	0.06	0.02	0.001	-	
MINIMUM	BDL	BDL	3.80	0.9	0.217	0.1	0.06	0.083	BDL	0.06	BDL	0.001	-	
MAXIMUM	14.8	13.7	4.60	6.3	2.880	0.9	0.35	0.882	BDL	0.19	0.03	0.004	-	
P.W. MEAN			4.03	3.5	1.484	0.1	0.20	0.449	0.00	0.12	0.01	0.002		

PRECIP TYPE

1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN

- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

MONTMORENCY FOREST

JUNE 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	1.57	0.35	bd1	bd1	0.39	bd1
2	bd1	bd1	bd1	bd1	bd1	bd1
3	bd1	bd1	bd1	bd1	bd1	bd1
4	0.96	0.46	bd1	bd1	bd1	1.5
5	1.95	0.56	bd1	bd1	0.52	2.6
6	0.88	0.21	0.10	bd1	bd1	2.1
7	bd1	bd1	bd1	bd1	bd1	0.8
8	0.85	0.20	bd1	bd1	bd1	bd1
9	0.75	0.31	bd1	bd1	bd1	1.3
10	0.85	0.39	bd1	0.06	bd1	1.2
11	1.40	0.70	bd1	0.06	0.33	1.9
12	1.33	0.57	bd1	0.06	bd1	1.9
13	2.93	1.05	bd1	0.16	0.53	2.3
14	2.17	0.58	bd1	bd1	bd1	0.8
15	2.73	0.46	bd1	bd1	0.46	0.9
16	0.79	bd1	bd1	bd1	bd1	0.8
17	bd1	bd1	bd1	0.06	bd1	0.5
18	bd1	bd1	bd1	bd1	bd1	bd1
19	0.84	bd1	bd1	bd1	bd1	0.9
20	bd1	bd1	bd1	bd1	bd1	1.2
21	0.75	bd1	bd1	bd1	bd1	1.0
22	0.69	bd1	bd1	bd1	bd1	0.7
23	bd1	bd1	bd1	bd1	bd1	0.8
24	bd1	bd1	bd1	bd1	bd1	bd1
25	1.19	bd1	bd1	0.09	bd1	bd1
26	bd1	bd1	0.14	0.11	bd1	bd1
27	bd1	bd1	bd1	bd1	bd1	1.1
28	2.15	1.19	bd1	bd1	0.48	2.7
29	0.84	bd1	bd1	bd1	bd1	bd1
30	bd1	bd1	bd1	bd1	bd1	1.0

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	-	-	-	-	30
A. MEAN	0.85	-	-	-	-	0.9
S.D.	0.86	-	-	-	-	0.8
MIN.	bd1	-	-	-	-	bd1
MAX.	2.93	-	-	-	-	2.7

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO4=	NO3-	Cl-	Ca++	NH4+	Mg++	Na+	K+	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)											+VE/-VE		
1	9.0	8.8	4.60	3.3	1.329	BDL	0.06	0.393	BDL	0.05	0.03	0.003	-		1
13	2.5	2.6	3.90	6.7	3.367	0.1	0.27	0.691	0.03	0.13	0.04	0.013	0.95		1
14	0.2	BDL	-	-	-	-	-	-	-	-	-	-	-		1
15	24.1	23.5	4.40	1.3	0.576	BDL	BDL	0.115	BDL	0.06	BDL	0.002	-		1
17	2.0	2.3	4.90	0.9	0.354	0.5	0.07	0.075	BDL	0.19	BDL	0.017	-		1
19	37.4	37.5	4.30	3.0	1.639	0.3	0.08	0.525	BDL	0.05	0.06	0.005	-		1
20	3.8	3.9	5.20	1.3	0.266	0.2	0.06	0.086	BDL	0.36	0.03	0.024	-		1
21	2.0	2.3	4.50	1.0	0.399	0.4	BDL	0.008	BDL	0.21	BDL	0.007	-		1
22	1.3	1.3	4.50	1.1	1.063	0.2	BDL	0.048	BDL	-	-	-	-		1
23	11.7	11.1	5.20	0.4	0.133	0.2	BDL	BDL	BDL	0.05	BDL	0.004	-		1
28	1.5	1.6	4.90	1.1	0.753	0.2	-	0.139	-	-	-	-	-		1
29	10.0	9.8	4.70	1.3	0.665	0.2	BDL	0.290	BDL	0.05	0.02	0.001	-		1
30	7.8	8.5	-	-	-	-	-	-	-	-	-	-	-		1
TOTAL PRECIP 113.3 113.2															
NO. OBS.	13	13	11	11	11	11	10	11	10	9	9	9	-		
A. MEAN	8.7	8.7	4.48	1.9	0.959	0.2	0.05	0.215	0.00	0.13	0.02	0.009	-		
STD. DEV.	10.8	10.7	4.47	1.8	0.923	0.2	0.08	0.230	0.01	0.11	0.02	0.008	-		
MINIMUM	0.2	BDL	3.90	0.4	0.133	BDL	BDL	BDL	BDL	0.05	BDL	0.001	-		
MAXIMUM	37.4	37.5	5.20	6.7	3.367	0.5	0.27	0.691	0.03	0.36	0.06	0.024	-		
P.W. MEAN			4.44	2.1	1.033	0.2	0.04	0.298	0.00	0.07	0.03	0.005			

PRECIP TYPE

1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN

- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

MONTMORENCY FOREST

JULY 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	0.35	bd1	bd1	bd1	bd1	bd1
2	0.37	bd1	bd1	bd1	0.22	bd1
3	0.27	bd1	bd1	bd1	bd1	bd1
4	0.33	bd1	bd1	bd1	bd1	1.3
5	1.30	0.89	bd1	bd1	0.36	6.2
6	20.16	1.61	bd1	bd1	3.25	4.0
7	15.57	0.92	bd1	bd1	2.60	6.2
8	0.78	0.27	bd1	bd1	bd1	bd1
9	0.45	0.21	bd1	bd1	bd1	bd1
10	0.44	0.28	bd1	bd1	0.19	bd1
11	1.83	0.56	bd1	bd1	0.60	2.6
12	4.27	0.73	bd1	bd1	1.06	2.4
13	0.48	bd1	bd1	bd1	bd1	bd1
14	0.81	0.45	0.10	0.14	bd1	0.8
15	2.42	0.66	bd1	bd1	0.59	1.1
16	3.31	0.61	bd1	0.14	0.76	0.6
17	30.93	1.29	0.11	0.11	5.73	11.1
18	8.18	0.51	bd1	bd1	1.93	1.2
19	1.15	0.36	bd1	bd1	0.31	bd1
20	0.52	0.31	0.12	bd1	bd1	1.3
21	0.34	0.35	bd1	bd1	bd1	bd1
22	0.66	bd1	bd1	bd1	bd1	bd1
23	0.16	bd1	bd1	bd1	bd1	bd1
24	0.56	bd1	bd1	0.22	bd1	bd1
25	1.47	0.28	bd1	bd1	0.38	2.1
26	0.33	-	-	-	-	bd1
27	0.23	-	-	-	-	bd1
28	0.40	0.22	bd1	bd1	0.23	2.1
29	bd1	bd1	bd1	bd1	bd1	bd1
30	0.61	0.22	bd1	bd1	0.27	bd1
31	2.61	0.79	0.11	bd1	0.81	1.5

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	29	-	-	29	-
A. MEAN	3.27	0.40	-	-	0.66	-
S.D.	6.82	0.41	-	-	1.26	-
MIN.	bd1	bd1	-	-	bd1	-
MAX.	30.93	1.61	-	-	5.73	-

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL.	
	STD (mm)	COLL (mm)											RATIO +VE/-VE	PRECIP TYPE
2	16.0	16.8	5.20	0.6	0.177	0.2	0.08	0.052	BDL	0.03	BDL	0.007	-	1
3	0.2	0.3	-	-	-	-	-	-	-	-	-	-	-	1
7	3.6	4.6	4.10	4.3	2.038	0.4	0.33	0.364	0.03	0.20	BDL	0.013	-	1
11	3.8	3.9	3.90	6.5	3.278	0.3	0.11	0.632	0.01	0.12	0.02	0.010	0.88	1
12	11.4	10.7	4.30	3.2	1.063	0.2	0.18	0.390	0.02	0.03	BDL	0.004	-	1
13	0.3	BDL	-	-	-	-	-	-	-	-	-	-	-	1
15	2.6	2.9	4.40	2.2	1.240	0.2	0.15	0.203	0.02	0.32	BDL	0.015	-	1
16	1.8	2.0	4.10	4.5	2.392	0.2	0.23	0.547	0.02	0.06	0.03	0.006	0.91	1
18	12.0	12.1	4.50	1.8	1.373	0.2	0.16	0.355	0.01	0.18	0.03	0.005	1.05	1
19	0.9	1.6	4.90	1.4	0.709	0.3	0.16	0.160	0.02	-	-	0.012	-	1
24	1.2	1.3	4.40	1.8	-	0.2	-	-	-	-	-	-	-	1
25	5.4	5.9	4.70	1.4	BDL	0.2	0.06	0.124	BDL	0.02	BDL	0.011	-	1
27	18.1	17.9	5.30	0.2	BDL	0.1	BDL	BDL	BDL	BDL	BDL	0.006	-	1
28	19.4	19.2	5.20	0.3	0.133	0.1	BDL	BDL	BDL	0.02	BDL	0.003	-	1
TOTAL PRECIP	96.7	99.2												
NO. OBS.	14	14	12	12	11	12	11	11	11	10	10	11	-	
A. MEAN	6.9	7.1	4.38	2.3	1.128	0.2	0.13	0.257	0.01	0.10	0.01	0.008	-	
STD. DEV.	7.0	6.9	4.43	1.9	1.084	0.1	0.10	0.216	0.01	0.11	0.01	0.004	-	
MINIMUM	0.2	BDL	3.90	0.2	BDL	0.1	BDL	BDL	BDL	BDL	BDL	0.003	-	
MAXIMUM	19.4	19.2	5.30	6.5	3.278	0.4	0.33	0.632	0.03	0.32	0.03	0.015	-	
P.W. MEAN			4.60	1.5	0.652	0.2	0.09	0.164	0.01	0.06	0.01	0.006		

PRECIP TYPE

- 1 - RAIN
- 2 - SNOW
- 3 - MIXED
- 4 - UNCERTAIN

- - MISSING DATA
BDL - BELOW DETECTION LIMIT

MONTMORENCY FOREST

AUGUST 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO ₄ ⁻	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	3.29	bd1	bd1	bd1	0.82	0.9
2	0.17	bd1	bd1	bd1	bd1	bd1
3	0.32	bd1	bd1	bd1	bd1	bd1
4	0.72	0.46	bd1	bd1	0.47	0.9
5	0.48	bd1	bd1	bd1	0.31	bd1
6	0.68	0.43	bd1	bd1	0.43	1.1
7	1.78	bd1	bd1	bd1	0.58	0.8
8	1.37	bd1	bd1	bd1	0.47	1.2
9	1.32	0.31	bd1	bd1	0.60	bd1
10	0.74	0.25	bd1	bd1	0.44	bd1
11	bd1	bd1	bd1	bd1	0.22	bd1
12	0.40	bd1	bd1	bd1	0.27	bd1
13	0.69	bd1	bd1	bd1	0.28	bd1
14	0.33	bd1	bd1	bd1	0.23	bd1
15	0.40	bd1	bd1	bd1	0.24	1.0
16	5.60	0.66	bd1	bd1	1.79	1.2
17	0.50	bd1	bd1	bd1	0.32	bd1
18	0.66	bd1	bd1	bd1	bd1	3.3
19	1.86	0.66	bd1	bd1	0.61	1.2
20	bd1	bd1	bd1	bd1	bd1	bd1
21	bd1	bd1	bd1	bd1	bd1	0.6
22	0.87	bd1	bd1	bd1	0.27	1.5
23	3.28	1.21	bd1	bd1	0.80	2.7
24	1.44	bd1	bd1	bd1	0.33	bd1
25	0.40	bd1	bd1	bd1	bd1	bd1
26	0.95	0.28	bd1	bd1	bd1	0.9
27	1.27	0.59	bd1	bd1	0.39	1.1
28	0.49	bd1	bd1	bd1	bd1	1.4
29	bd1	bd1	bd1	bd1	bd1	0.9
30	1.42	0.45	bd1	bd1	0.43	1.8
31	0.57	bd1	bd1	bd1	bd1	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	-	-	-	31	31
A. MEAN	1.03	-	-	-	0.33	0.7
S.D.	1.18	-	-	-	0.37	0.8
MIN.	bd1	-	-	-	bd1	bd1
MAX.	5.60	-	-	-	1.79	3.3

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO4=	NO3-	Cl-	Ca++	NH4+	Mg++	Na+	K+	TOT P	ION BAL. RATIO +VE/-VE	PRECIP TYPE
	STD (mm)	COLL (mm)												
1	4.0	4.9	5.50	1.4	0.665	0.1	0.52	0.636	0.02	0.07	0.05	0.014	1.58	1
4	0.2	0.7	-	1.1	-	0.8	-	-	-	-	-	-	-	1
6	10.0	10.3	5.20	0.4	0.222	0.1	BDL	BDL	BDL	0.11	BDL	0.004	-	1
8	18.5	17.9	4.80	1.1	0.443	0.1	BDL	0.108	BDL	0.13	0.03	0.004	-	1
9	5.2	5.2	4.20	3.3	1.728	0.1	0.06	0.464	BDL	0.24	BDL	0.007	-	1
10	0.2	0.3	-	2.1	-	1.8	-	-	-	-	-	-	-	1
11	3.8	4.6	5.10	0.3	0.177	BDL	BDL	0.017	BDL	BDL	BDL	0.004	-	1
13	6.2	6.5	4.80	0.7	0.354	BDL	BDL	0.059	BDL	BDL	BDL	0.005	-	1
14	0.2	BDL	-	-	-	-	-	-	-	-	-	-	-	1
16	1.2	1.6	4.40	3.0	1.329	0.3	0.28	0.622	0.04	-	-	-	-	1
18	2.6	2.9	4.30	1.7	0.089	0.1	0.09	BDL	BDL	0.23	BDL	0.014	-	1
19	10.4	10.4	4.40	2.0	1.551	0.1	0.46	0.270	0.04	0.07	0.02	0.027	1.21	1
22	9.2	9.1	4.70	1.2	0.443	BDL	BDL	0.079	BDL	0.05	0.03	0.008	-	1
23	5.4	3.9	4.00	4.1	2.614	0.1	0.06	0.428	BDL	0.12	BDL	0.015	-	1
25	14.0	14.0	5.20	0.5	0.177	BDL	BDL	BDL	BDL	0.04	BDL	-	-	1
26	0.2	0.3	-	3.9	BDL	1.3	-	BDL	-	-	-	-	-	1
27	13.4	14.3	4.50	1.9	1.196	0.1	0.08	0.275	BDL	0.08	BDL	0.008	-	1
28	0.7	0.7	-	0.9	-	0.3	-	-	-	-	-	-	-	1
29	1.4	2.0	4.90	0.7	BDL	0.1	BDL	BDL	BDL	-	-	0.013	-	1
30	12.4	13.0	4.30	2.2	1.285	0.1	0.05	0.177	BDL	0.07	BDL	0.005	-	1
TOTAL PRECIP 119.2 122.6														
NO. OBS.	20	20	15	19	16	19	15	16	15	13	13	13	-	
A. MEAN	6.0	6.1	4.51	1.7	0.767	0.3	0.11	0.196	0.01	0.09	0.01	0.010	-	
STD. DEV.	5.6	5.5	4.57	1.2	0.763	0.5	0.17	0.228	0.01	0.07	0.02	0.007	-	
MINIMUM	0.2	BDL	4.00	0.3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.004	-	
MAXIMUM	18.5	17.9	5.50	4.1	2.614	1.8	0.52	0.636	0.04	0.24	0.05	0.027	-	
P.W. MEAN			4.55	1.5	0.810	0.1	0.08	0.168	0.00	0.09	0.01	0.009	-	

PRECIP TYPE

1 - RAIN
2 - SNOW
3 - MIXED
4 - UNCERTAIN

- - MISSING DATA
BDL - BELOW DETECTION LIMIT

MONTMORENCY FOREST

SEPTEMBER 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	SO ₄ ⁼	PARTICULATE				GAS SO ₂
		NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	0.27	bd1	bd1	bd1	bd1	bd1
2	0.19	bd1	bd1	bd1	bd1	bd1
3	0.36	bd1	bd1	bd1	bd1	bd1
4	0.26	bd1	bd1	bd1	bd1	bd1
5	0.70	bd1	bd1	bd1	0.26	1.8
6	bd1	bd1	bd1	bd1	bd1	bd1
7	bd1	bd1	bd1	bd1	bd1	bd1
8	0.97	0.74	bd1	bd1	0.34	3.4
9	2.25	0.52	bd1	bd1	0.39	0.9
10	8.14	0.65	bd1	bd1	1.85	1.2
11	4.85	1.08	0.47	0.53	0.97	2.0
12	12.71	1.91	bd1	bd1	3.16	4.1
13	19.00	2.95	0.30	0.34	4.52	5.5
14	-	-	-	-	-	-
15	-	-	-	-	-	-
16	bd1	bd1	bd1	bd1	bd1	bd1
17	bd1	bd1	bd1	bd1	bd1	bd1
18	-	-	-	-	-	-
19	-	-	-	-	-	-
20	-	-	-	-	-	-
21	-	-	-	-	-	-
22	-	-	-	-	-	-
23	-	-	-	-	-	-
24	-	-	-	-	-	-
25	-	-	-	-	-	-
26	-	-	-	-	-	-
27	-	-	-	-	-	-
28	-	-	-	-	-	-
29	-	-	-	-	-	-
30	-	-	-	-	-	-

bd1 - BELOW DETECTION LIMIT

NO. OBS.	-	-	-	-	-	-
A. MEAN	-	-	-	-	-	-
S.D.	-	-	-	-	-	-
MIN.	-	-	-	-	-	-
MAX.	-	-	-	-	-	-

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO	PRECIP TYPE
	STD (mm)	COLL (mm)											+VE/-VE	
1	21.8	21.5	5.10	0.3	0.266	0.1	BDL	0.025	BDL	BDL	BDL	0.001	-	1
2	11.4	11.1	4.60	1.2	0.665	0.1	BDL	0.097	BDL	0.05	BDL	0.002	-	1
3	8.2	8.5	5.20	0.6	0.266	0.2	0.06	BDL	BDL	0.13	BDL	0.007	-	1
4	0.7	0.7	4.70	1.2	-	0.2	-	-	-	-	-	-	-	1
6	5.9	6.5	5.60	0.3	0.044	0.1	BDL	BDL	BDL	0.09	BDL	0.007	-	1
10 (2)	1.6	2.6	4.50	2.5	0.975	0.2	0.15	0.422	0.02	0.12	0.05	-	-	1
14	12.2	12.4	3.80	8.3	3.101	0.2	0.21	1.072	0.02	0.03	BDL	0.003	-	1
15	26.6	25.4	5.20	0.4	0.089	0.1	BDL	BDL	BDL	BDL	BDL	0.001	-	1
16	3.6	2.3	4.70	0.9	0.133	0.1	BDL	BDL	BDL	BDL	BDL	-	-	1
17	0.4	0.7	4.30	1.7	-	0.2	-	-	-	-	-	-	-	1
18	5.7	5.5	4.40	2.2	0.709	0.2	BDL	0.172	BDL	BDL	BDL	0.002	-	1
19	0.2	BDL	4.80	0.3	-	0.2	-	-	-	-	-	-	-	1
23	8.6	8.8	5.40	BDL	0.133	BDL	BDL	BDL	BDL	0.08	BDL	0.004	-	1
24	1.5	2.0	3.80	3.5	1.019	BDL	0.10	0.150	0.02	0.29	0.03	0.005	-	1
27	6.0	5.9	5.00	0.8	0.266	BDL	BDL	0.017	BDL	0.04	BDL	0.004	-	1

TOTAL PRECIP 112.8 111.3

NO. OBS.	14	14	14	14	11	14	11	11	11	11	11	10	-
A. MEAN	8.1	7.9	4.43	1.5	0.608	0.1	0.03	0.139	0.00	0.06	0.00	0.004	-
STD. DEV.	7.9	7.7	4.28	2.2	0.882	0.1	0.07	0.316	0.01	0.09	0.01	0.002	-
MINIMUM	0.2	BDL	3.80	BDL	0.044	BDL	BDL	BDL	BDL	BDL	BDL	0.001	-
MAXIMUM	26.6	25.4	5.60	8.3	3.101	0.2	0.21	1.072	0.02	0.29	0.03	0.007	-
P.W. MEAN			4.53	1.5	0.581	0.1	0.03	0.144	0.00	0.03	0.00	0.003	-

PRECIP TYPE

- 1 - RAIN
2 - SNOW
3 - MIXED
4 - UNCERTAIN
- - MISSING DATA
BDL - BELOW DETECTION LIMIT

DAY() - DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

MONTMORENCY FOREST

OCTOBER 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE						GAS
	SO_4^{2-}	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2	
1	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-
14	0.53	bd1	bd1	0.39	bd1	bd1	bd1
15	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-
21	bd1	bd1	bd1	bd1	bd1	bd1	bd1
22	0.29	bd1	0.11	bd1	bd1	bd1	bd1
23	0.53	bd1	bd1	bd1	bd1	bd1	0.7
24	0.60	0.48	0.10	0.10	0.24	1.8	1.8
25	2.15	0.46	bd1	0.13	0.73	1.7	1.7
26	1.24	bd1	bd1	bd1	bd1	0.6	0.6
27	2.70	0.70	0.20	0.28	0.76	3.8	3.8
28	3.19	1.02	0.13	0.18	0.93	4.0	4.0
29	1.66	0.97	bd1	bd1	0.60	4.7	4.7
30	2.63	2.82	bd1	bd1	1.12	7.3	7.3
31	2.23	1.27	bd1	bd1	0.98	8.5	8.5

bd1 - BELOW DETECTION LIMIT

NO. OBS.	-	-	-	-	-	-
A. MEAN	-	-	-	-	-	-
S.D.	-	-	-	-	-	-
MIN.	-	-	-	-	-	-
MAX.	-	-	-	-	-	-

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO4=	NO3-	Cl-	Ca++	NH4+	Mg++	Na+	K+	TOT P	ION BAL.	PRECIP
	STD (mm)	COLL (mm)											RATIO +VE/-VE	
1	5.0	5.2	4.70	1.6	0.354	BDL	BDL	0.219	BDL	BDL	BDL	0.003	-	1
3	1.0	1.3	8.00	16.0	BDL	1.6	-	71.159	-	-	-	-	-	1
5	BDL	0.3	-	2.1	-	0.2	-	-	-	-	-	-	-	1
7	7.4	7.5	4.10	4.3	0.930	0.2	BDL	0.375	BDL	BDL	BDL	0.002	-	1
8	2.3	1.6	3.80	3.6	0.665	0.1	BDL	0.094	BDL	BDL	BDL	-	-	1
12	1.8	2.3	3.80	4.3	4.962	0.3	0.10	0.537	0.03	0.07	0.23	0.144	1.14	1
13	7.2	7.2	4.20	2.9	2.968	0.2	0.11	0.593	0.02	0.18	BDL	0.009	-	1
14	9.6	9.4	4.60	1.3	0.886	0.1	BDL	0.205	BDL	0.03	BDL	0.007	-	1
15	3.9	3.4	4.90	0.9	0.399	0.1	0.05	0.095	BDL	0.06	0.03	0.010	-	1
16	2.6	2.0	5.90	0.3	BDL	0.1	BDL	BDL	BDL	0.25	0.04	0.015	-	4
17	0.8	0.3	-	1.4	-	1.3	-	-	-	-	-	-	-	2
19	0.2	BDL	-	-	-	-	-	-	-	-	-	-	-	4
20	13.6	14.0	4.50	1.3	1.072	BDL	BDL	0.132	0.01	0.02	BDL	0.004	-	4
21	0.8	0.7	4.60	0.6	-	0.1	-	-	-	-	-	-	-	4
23	1.2	0.7	5.70	1.9	-	0.6	-	-	-	-	-	-	-	4
TOTAL PRECIP	57.4	55.9												
NO. OBS.	15	15	12	14	10	14	9	10	9	9	9	8	-	
A. MEAN	3.8	3.7	4.32	3.0	1.224	0.3	0.03	7.341	0.01	0.07	0.03	0.024	-	
STD. DEV.	4.0	4.1	4.25	3.9	1.563	0.5	0.05	22.424	0.01	0.09	0.08	0.049	-	
MINIMUM	BDL	BDL	3.80	0.3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.002	-	
MAXIMUM	13.6	14.0	8.00	16.0	4.962	1.6	0.11	71.159	0.03	0.25	0.23	0.144	-	
P.W. MEAN			4.35	2.3	1.197	0.1	0.02	1.555	0.01	0.05	0.01	0.011	-	

PRECIP TYPE

1 - RAIN
2 - SNOW
3 - MIXED
4 - UNCERTAIN

- - MISSING DATA
BDL - BELOW DETECTION LIMIT

MONTMORENCY FOREST

NOVEMBER 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	SO ₂
1	0.69	0.27	bd1	bd1	0.25	2.7
2	0.51	0.23	bd1	bd1	bd1	0.9
3	1.39	0.45	bd1	bd1	0.36	0.6
4	0.44	bd1	bd1	bd1	bd1	bd1
5	0.62	0.37	0.08	bd1	0.21	0.5
6	0.48	bd1	bd1	bd1	bd1	bd1
7	1.16	0.43	bd1	bd1	0.39	0.7
8	1.05	0.43	bd1	bd1	0.37	bd1
9	0.21	bd1	bd1	bd1	bd1	bd1
10	0.14	bd1	bd1	bd1	bd1	1.1
11	1.15	1.66	bd1	bd1	0.30	2.6
12	1.51	0.82	bd1	bd1	0.27	1.9
13	0.51	0.25	bd1	bd1	bd1	bd1
14	0.34	0.22	0.08	bd1	bd1	1.4
15	0.63	0.32	bd1	bd1	bd1	0.6
16	1.46	2.03	bd1	bd1	0.49	5.0
17	3.00	2.12	0.15	0.20	0.94	7.6
18	1.88	0.86	bd1	bd1	0.60	1.7
19	2.02	0.59	0.09	0.10	0.61	1.5
20	2.93	1.11	0.29	0.32	0.75	1.5
21	0.80	0.30	0.50	0.32	0.24	bd1
22	0.58	bd1	bd1	bd1	bd1	bd1
23	0.47	bd1	bd1	bd1	bd1	bd1
24	0.65	bd1	bd1	bd1	bd1	0.8
25	0.72	bd1	bd1	bd1	bd1	0.7
26	0.41	0.20	0.10	bd1	bd1	1.3
27	0.49	bd1	0.08	0.09	bd1	2.3
28	1.10	0.47	bd1	bd1	0.28	1.6
29	1.42	bd1	bd1	bd1	0.31	bd1
30	3.12	0.81	bd1	bd1	0.46	1.0

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	30	-	-	30	30
A. MEAN	1.06	0.46	-	-	0.23	1.3
S.D.	0.82	0.59	-	-	0.26	1.6
MIN.	0.14	bd1	-	-	bd1	bd1
MAX.	3.12	2.12	-	-	0.94	7.6

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO4=	NO3-	Cl-	Ca++	NH4+	Mg++	Na+	K+	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)											+VE/-VE		
2	12.4	11.7	4.20	2.7	2.016	0.1	0.07	0.275	0.01	0.08	BDL	0.003	-		4
3	13.5	14.0	4.10	3.5	2.507	0.1	BDL	0.329	BDL	0.03	BDL	0.003	-		4
4	56.1	54.6	4.50	1.1	1.121	BDL	BDL	0.106	BDL	0.05	BDL	0.001	-		4
5	12.8	10.7	4.80	0.6	0.492	BDL	BDL	0.055	BDL	BDL	0.04	0.001	-		4
6	11.4	4.6	4.90	0.9	0.359	BDL	BDL	0.193	BDL	BDL	0.02	0.005	-		4
7	7.0	5.9	4.50	1.6	2.104	0.1	0.12	0.386	0.01	0.07	0.04	0.005	0.91		4
8	1.9	1.3	3.90	4.4	-	0.2	0.15	-	0.03	0.30	0.12	0.009	-		4
9	1.8	0.7	5.20	0.6	-	0.3	-	-	-	-	-	-	-		4
11	10.8	9.8	4.10	3.0	3.154	0.1	0.09	0.405	0.02	0.04	BDL	0.004	-		4
12	14.8	15.0	4.40	1.8	1.497	0.2	BDL	0.255	0.01	0.06	BDL	0.001	-		4
13	0.6	0.3	4.90	BDL	-	0.1	-	-	-	-	-	-	-		4
14	7.3	6.5	4.40	0.2	2.437	0.1	BDL	BDL	BDL	0.07	BDL	0.001	-		4
15	2.8	2.3	4.30	0.6	2.973	0.1	BDL	BDL	BDL	BDL	BDL	0.003	-		4
21	5.6	5.2	4.50	1.3	0.913	0.1	BDL	0.063	BDL	BDL	BDL	0.001	-		4
22	1.4	1.6	4.20	0.8	0.598	0.1	BDL	BDL	BDL	0.07	BDL	0.003	-		4
23	19.4	18.6	4.20	2.2	2.118	0.1	BDL	0.094	0.01	0.05	BDL	0.002	-		4
24	2.0	1.3	4.70	0.8	0.146	0.2	-	BDL	-	-	-	-	-		4
25	1.4	0.5	4.70	0.4	-	0.3	-	-	-	-	-	-	-		2
26	7.8	6.2	4.70	BDL	1.400	0.1	BDL	BDL	BDL	BDL	BDL	0.002	-		2
28	0.4	0.3	3.80	2.1	-	0.2	-	-	-	-	-	-	-		4
29	2.7	2.6	4.20	0.9	0.682	0.1	BDL	BDL	BDL	0.08	BDL	0.001	-		4
30	0.4	0.3	-	1.6	-	BDL	-	-	-	-	-	-	-		4

TOTAL PRECIP	194.3	174.0													
NO. OBS.	22	22	21	22	16	22	16	16	16	16	16	16	-	-	
A. MEAN	8.8	7.9	4.31	1.4	1.532	0.1	0.03	0.135	0.01	0.06	0.01	0.003	-	-	
STD. DEV.	11.9	11.8	4.41	1.2	0.964	0.1	0.05	0.149	0.01	0.07	0.03	0.002	-	-	
MINIMUM	0.4	0.3	3.80	BDL	0.146	BDL	BDL	BDL	BDL	BDL	BDL	0.001	-	-	
MAXIMUM	56.1	54.6	5.20	4.4	3.154	0.3	0.15	0.405	0.03	0.30	0.12	0.009	-	-	
P.W. MEAN			4.37	1.5	1.540	0.1	0.02	0.158	0.00	0.04	0.01	0.002	-	-	

PRECIP TYPE

1 - RAIN

- - MISSING DATA

2 - SNOW

BDL - BELOW DETECTION LIMIT

3 - MIXED

4 - UNCERTAIN

MONTMORENCY (DECEMBER 1982)

-3 -1

PRECIPITATION CONCENTRATIONS (10⁻³ g/l)

DAY	AMOUNT		PH	SO4=	NO3-	Cl-	Ca++	NH4+	Mg++	Na+	K+	TOT P	ION BAL.	PRECIP
	STD (mm)	COLL (mm)											RATIO +VE/-VE	
1	4.6	4.6	4.10	3.6	2.835	0.1	0.09	0.248	0.01	0.27	0.06	0.005	0.91	4
2	1.6	1.6	4.00	3.0	2.423	0.1	BDL	0.298	BDL	0.28	0.07	-	-	1
3	18.8	17.9	4.20	3.3	1.967	0.2	BDL	0.222	0.01	0.20	0.02	0.001	-	4
5	14.1	14.0	4.30	2.3	1.923	0.2	BDL	0.152	0.01	0.30	0.02	0.001	-	4
6	5.1	4.6	4.40	2.2	1.830	0.1	0.11	0.347	0.01	BDL	0.02	-	-	4
8	4.2	2.0	4.90	0.4	0.691	0.1	0.06	BDL	BDL	0.04	0.04	-	-	2
10	3.4	1.6	-	-	-	-	-	-	-	-	-	-	-	2
11	0.4	BDL	-	-	-	-	-	-	-	-	-	-	-	2
13	1.8	1.6	4.20	0.8	-	0.3	0.21	-	0.04	0.25	0.02	-	-	2
14	1.6	1.0	3.50	7.4	-	0.8	0.48	-	0.09	-	-	-	-	2
15	11.8	10.7	4.40	1.5	1.825	0.1	BDL	0.116	BDL	BDL	BDL	0.006	-	4
16	9.0	6.8	4.50	1.0	0.780	0.1	BDL	0.008	BDL	BDL	BDL	0.001	-	4
20	3.0	2.3	5.20	0.3	0.235	0.1	BDL	0.012	BDL	0.03	BDL	-	-	4
21	0.2	BDL	-	-	-	-	-	-	-	-	-	-	-	4
23	1.2	BDL	-	-	-	-	-	-	-	-	-	-	-	2
24	11.6	9.1	4.60	1.0	0.802	0.1	BDL	0.028	BDL	BDL	BDL	0.001	-	4
25	31.5	30.3	4.60	1.7	0.532	0.1	0.05	0.092	BDL	0.04	BDL	0.001	-	1
26	2.2	0.7	-	1.0	0.399	0.1	-	BDL	-	-	-	-	-	4
27	0.2	BDL	-	-	-	-	-	-	-	-	-	-	-	4
28	23.8	21.2	4.40	1.6	0.930	0.1	BDL	0.115	BDL	0.06	BDL	0.001	-	4
30	0.4	BDL	-	-	-	-	-	-	-	-	-	-	-	2
31	1.2	BDL	-	-	-	-	-	-	-	-	-	-	-	2
TOTAL PRECIP 151.7 130.0														
NO. OBS.	22	22	14	15	13	15	14	13	14	13	13	8	-	
A. MEAN	6.9	5.9	4.20	2.1	1.321	0.2	0.07	0.126	0.01	0.11	0.02	0.002	-	
STD. DEV.	8.5	8.2	4.11	1.8	0.845	0.2	0.13	0.120	0.02	0.12	0.02	0.002	-	
MINIMUM	0.2	BDL	3.50	0.3	0.235	0.1	BDL	BDL	BDL	BDL	BDL	0.001	-	
MAXIMUM	31.5	30.3	5.20	7.4	2.835	0.8	0.48	0.347	0.09	0.30	0.07	0.006	-	
P.W. MEAN			4.37	1.9	1.214	0.1	0.03	0.121	0.00	0.09	0.01	0.002	-	

PRECIP TYPE

1 - RAIN
2 - SNOW
3 - MIXED
4 - UNCERTAIN
- - MISSING DATA
BDL - BELOW DETECTION LIMIT

MONTHLY SUMMARIES OF MEASURED CONCENTRATIONS IN AIR AND PRECIPITATION AT KEJIMKUJIK

JANUARY 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁻	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	1.43	0.29	0.86	0.34	0.25	1.7
2	0.98	0.25	1.24	0.43	bd1	2.4
3	1.25	0.17	1.00	0.38	bd1	0.9
4	bd1	0.30	0.58	0.38	0.30	0.5
5	1.90	1.01	1.45	0.94	0.51	3.3
6	1.28	0.49	0.67	0.46	0.37	1.2
7	2.96	1.85	0.19	bd1	0.82	4.2
8	1.32	0.35	0.39	0.26	0.42	4.0
9	1.45	0.74	0.20	bd1	0.54	3.6
10	1.43	0.53	0.17	bd1	0.43	4.5
11	1.77	0.34	bd1	0.31	0.91	4.5
12	1.67	0.88	0.41	bd1	bd1	8.5
13	1.90	0.88	0.35	0.34	0.37	5.6
14	0.88	0.09	bd1	bd1	bd1	1.5
15	0.93	0.28	0.69	0.37	bd1	1.9
16	1.99	0.64	0.62	0.48	0.34	1.7
17	1.54	0.54	0.70	0.38	0.24	4.4
18	0.93	0.42	1.00	0.71	bd1	4.0
19	0.98	0.28	0.81	0.44	0.29	3.2
20	2.09	0.56	0.45	0.25	bd1	10.0
21	1.45	0.26	0.39	0.32	bd1	8.1
22	0.97	0.24	0.41	0.34	bd1	3.1
23	0.91	0.16	0.29	0.33	bd1	1.8
24	1.80	0.56	0.39	0.40	0.59	6.2
25	1.63	0.57	0.45	0.38	0.44	4.7
26	1.32	0.39	0.16	bd1	0.27	4.9
27	2.29	0.52	0.59	bd1	bd1	4.9
28	2.47	1.46	0.95	0.96	0.50	3.8
29	2.42	0.77	1.47	1.01	0.53	4.5
30	1.94	0.76	0.77	0.58	0.44	2.3
31	2.67	0.86	0.56	0.38	0.55	3.8

bd1 - BELOW DETECTION LIMIT

	31	31	31	31	31	31
NO. OBS.	31	31	31	31	31	31
A. MEAN	1.57	0.56	0.59	0.36	0.29	3.9
S.D.	0.62	0.38	0.38	0.27	0.26	2.2
MIN.	bd1	0.09	bd1	bd1	bd1	0.5
MAX.	2.96	1.85	1.47	1.01	0.91	10.0

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL.	PRECIP TYPE
	STD (mm)	COLL (mm)											RATIO +VE/-VE	
1	26.4	22.1	5.80	0.8	0.053	0.9	0.09	0.026	0.05	0.61	0.15	0.010	0.91	2
2	5.2	7.2	5.10	1.7	0.128	7.9	0.24	0.040	0.50	4.43	0.21	0.010	1.00	2
4	34.1	45.3	5.10	0.9	0.173	1.4	0.07	0.015	0.12	0.88	0.04	0.003	1.00	2
5	0.8	1.3	4.80	7.7	-	41.8	-	-	-	-	-	0.012	-	2
6	1.0	1.6	4.40	2.9	4.124	5.6	0.36	0.267	0.38	3.79	0.37	-	0.98	2
7	2.2	2.9	3.90	2.4	7.221	2.3	0.20	0.255	0.16	1.33	0.10	0.010	0.97	2
8	4.5	4.6	4.70	1.3	1.059	8.4	0.27	0.048	0.51	4.81	0.20	0.011	1.04	2
9	3.2	3.3	4.40	0.3	3.447	1.3	0.12	0.151	0.06	1.17	0.54	0.008	1.27	2
10	1.0	1.3	4.80	1.3	-	1.9	-	-	-	-	-	-	-	2
11	3.6	4.2	4.50	0.4	1.861	2.0	0.13	0.057	0.12	1.20	0.09	0.003	1.11	2
12	0.9	1.3	4.30	0.9	-	5.6	-	-	-	-	-	0.008	-	2
13	13.4	13.4	5.20	BDL	0.430	0.2	0.04	0.061	0.02	0.16	0.03	0.001	-	2
14	30.2	26.1	5.00	0.6	0.713	1.9	0.10	0.035	0.13	1.22	0.04	0.001	1.05	2
15	11.2	13.0	6.20	0.7	0.190	4.2	0.25	0.102	0.22	2.41	0.62	0.013	1.09	4
16	5.4	5.5	4.00	3.4	4.474	3.1	0.13	0.303	0.20	1.81	0.41	0.002	0.99	2
17	4.5	4.6	4.60	8.5	1.014	72.7	1.42	0.071	3.85	33.84	1.30	0.033	0.86	2
18	0.8	1.3	4.80	15.0	-	115.2	-	-	-	-	-	-	-	2
20	0.8	1.3	4.40	0.6	-	BDL	-	-	-	-	-	-	-	2
21	0.6	1.3	5.80	3.4	-	23.1	-	-	-	-	-	-	-	2
23	34.8	34.9	5.60	BDL	0.151	0.4	0.09	0.022	0.04	0.29	0.07	0.006	-	4
24	2.4	2.9	4.00	1.5	2.649	5.1	0.22	0.124	0.30	2.88	0.33	0.011	1.27	2
25	0.5	1.3	-	3.4	-	14.6	-	-	-	-	-	-	-	2
28	0.8	1.6	4.20	3.6	5.360	10.0	-	0.169	-	-	-	-	-	2
30	11.4	11.4	4.20	2.0	0.035	1.1	0.09	0.144	0.11	0.85	0.06	0.005	1.66	2
31	3.4	2.3	4.90	2.9	0.452	2.9	-	0.057	-	-	-	0.007	-	2

TOTAL PRECIP 203.1 216.0

	25	25	24	25	18	25	16	18	16	16	16	18	-
NO. OBS.	25	25	24	25	18	25	16	18	16	16	16	18	-
A. MEAN	8.1	8.6	4.48	2.6	1.863	13.3	0.24	0.108	0.42	3.85	0.28	0.008	-
STD. DEV.	11.0	11.6	4.46	3.3	2.182	26.6	0.33	0.090	0.93	8.12	0.33	0.007	-
MINIMUM	0.5	1.3	3.90	BDL	0.035	BDL	0.04	0.015	0.02	0.16	0.03	0.001	-
MAXIMUM	34.8	45.3	6.20	15.0	7.221	115.2	1.42	0.303	3.85	33.84	1.30	0.033	-
P.W. MEAN			4.79	1.1	0.640	4.1	0.14	0.056	0.21	1.86	0.16	0.006	-

PRECIP TYPE

- 1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN
- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

KEJIMKUJIK

FEBRUARY 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2
1	2.15	0.44	0.63	0.36	bd1	5.0
2	1.49	0.37	0.64	bd1	bd1	2.2
3	-	-	-	-	-	-
4	2.56	0.35	0.24	bd1	0.33	4.0
5	2.06	0.33	0.35	0.26	0.22	3.4
6	3.47	0.79	0.78	0.60	0.35	9.3
7	1.93	0.81	0.97	0.68	0.27	6.0
8	2.61	0.98	1.12	0.43	0.54	7.6
9	2.15	0.55	0.31	0.20	0.43	4.1
10	1.70	0.52	0.40	0.29	0.29	4.8
11	1.87	0.90	0.34	0.30	0.36	5.2
12	3.50	1.04	0.37	0.20	0.76	8.4
13	3.40	0.67	0.29	bd1	0.65	-
14	1.16	0.26	0.16	bd1	0.35	6.5
15	3.59	1.11	0.79	0.79	1.22	6.4
16	4.15	0.41	0.46	0.39	0.91	8.1
17	1.52	0.11	0.38	0.24	0.62	2.7
18	0.91	0.13	bd1	bd1	0.57	2.2
19	1.03	0.22	0.75	0.29	bd1	1.4
20	1.25	0.14	0.39	0.23	bd1	1.5
21	1.03	0.09	0.65	0.36	0.24	3.4
22	1.94	0.20	0.90	0.59	0.47	0.7
23	2.23	0.34	0.56	0.75	0.64	2.5
24	1.69	0.27	0.89	0.64	0.71	4.9
25	1.40	0.19	1.12	0.72	0.60	3.4
26	1.36	0.20	1.67	1.38	0.65	2.9
27	1.36	0.32	0.64	0.27	0.20	5.6
28	1.69	0.13	0.35	0.14	0.21	5.3

bd1 - BELOW DETECTION LIMIT

NO. OBS.	27	27	27	27	27	26
A. MEAN	2.04	0.44	0.60	0.37	0.43	4.5
S.D.	0.89	0.31	0.36	0.32	0.30	2.3
MIN.	0.91	0.09	bd1	bd1	bd1	0.7
MAX.	4.15	1.11	1.67	1.38	1.22	9.3

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)											+VE/-VE		
1	21.6	20.2	5.50	0.9	0.102	0.8	0.06	0.041	0.03	0.28	0.05	0.002	0.54		2
3	23.2	23.8	4.70	1.2	0.416	3.3	0.11	0.015	0.17	1.45	0.08	0.003	0.85		2
5	6.2	6.8	4.00	3.8	2.685	1.1	0.20	0.240	0.08	0.50	0.06	0.004	0.99		2
6	1.0	1.3	4.50	3.2	1.537	6.7	-	0.147	-	-	-	-	-		2
9	15.4	15.3	5.10	0.7	0.673	0.5	0.06	0.067	0.02	0.22	0.04	0.002	0.67		2
10	4.2	5.2	4.60	2.0	0.877	3.4	0.19	0.061	0.25	1.87	0.12	0.009	0.95		2
11	1.0	1.3	4.10	2.0	3.956	4.3	-	0.046	-	-	-	-	-		2
13	4.6	4.6	4.60	0.9	BDL	1.0	0.09	0.178	0.05	0.49	0.04	0.003	-		2
14	0.8	1.0	7.30	5.5	-	-	-	-	-	-	-	-	-		2
19	1.0	1.3	4.90	2.4	-	4.2	-	-	-	-	-	-	-		2
20	5.0	6.5	5.10	1.2	0.359	1.4	0.14	0.208	0.08	0.79	0.21	0.008	1.01		2
21	3.6	12.4	4.70	1.2	0.434	0.8	0.07	0.150	0.04	0.33	0.06	0.006	0.95		2
23	1.0	1.3	4.60	3.2	1.280	5.2	-	0.449	-	-	-	-	-		2
25	0.5	0.7	-	-	-	-	-	-	-	-	-	-	-		2
TOTAL PRECIP 89.1 101.7															
NO. OBS.	14	14	13	13	11	12	8	11	8	8	8	8	7		
A. MEAN	6.4	7.3	4.56	2.2	1.120	2.7	0.11	0.146	0.09	0.74	0.08	0.005	0.85		
STD. DEV.	7.8	7.7	4.53	1.4	1.216	2.1	0.06	0.125	0.08	0.60	0.06	0.003	0.18		
MINIMUM	0.5	0.7	4.00	0.7	BDL	0.5	0.06	0.015	0.02	0.22	0.04	0.002	0.54		
MAXIMUM	23.2	23.8	7.30	5.5	3.956	6.7	0.20	0.449	0.25	1.87	0.21	0.009	1.01		
P.W. MEAN			4.70	1.4	0.607	1.8	0.10	0.081	0.09	0.73	0.07	0.003			

PRECIP TYPE

1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN

- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

KEJIMKUJIK

MARCH 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	1.65	0.20	0.27	bd1	0.24	3.0
2	3.73	0.74	0.53	0.20	0.52	5.6
3	3.69	0.35	0.53	0.20	0.32	6.4
4	1.87	0.31	0.45	0.14	0.18	2.3
5	4.39	0.88	0.22	0.27	0.39	2.4
6	2.61	0.35	0.17	bd1	0.35	4.5
7	0.72	bd1	bd1	bd1	bd1	4.5
8	3.11	0.34	0.35	0.31	0.39	4.8
9	2.01	0.41	0.17	0.15	0.30	5.4
10	2.89	0.72	0.19	0.22	0.31	3.0
11	3.22	0.74	0.66	0.47	0.44	2.6
12	-	-	-	-	-	-
13	-	-	-	-	-	-
14	-	-	-	-	-	-
15	-	-	-	-	-	-
16	-	-	-	-	-	-
17	-	-	-	-	-	-
18	-	-	-	-	-	-
19	-	-	-	-	-	-
20	-	-	-	-	-	-
21	-	-	-	-	-	-
22	-	-	-	-	-	-
23	-	-	-	-	-	-
24	-	-	-	-	-	-
25	-	-	-	-	-	-
26	2.12	0.64	0.55	0.42	bd1	1.1
27	2.42	0.42	0.93	0.66	bd1	2.5
28	1.37	0.13	0.54	1.30	0.23	1.3
29	2.10	1.06	1.50	0.64	0.60	3.2
30	2.83	0.70	0.26	0.40	1.77	4.0
31	2.99	1.11	0.80	0.31	0.79	2.7

bd1 - BELOW DETECTION LIMIT

NO. OBS.	-	-	-	-	-	-
A. MEAN	-	-	-	-	-	-
S.D.	-	-	-	-	-	-
MIN.	-	-	-	-	-	-
MAX.	-	-	-	-	-	-

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)											+VE/-VE		
1	0.8	1.0	4.50	1.8	BDL	2.5	0.10	BDL	0.15	-	-	-	-		2
2	15.6	14.7	4.50	1.3	0.975	2.2	0.10	0.088	0.14	1.27	0.05	0.002	1.05		2
4	12.8	13.0	4.40	1.7	BDL	0.6	0.09	0.084	0.05	0.38	0.03	0.001	-		2
5	0.8	2.4	3.90	8.5	4.209	0.9	1.19	0.737	0.20	0.75	0.12	-	1.03		2
6	11.8	12.4	4.40	1.3	BDL	BDL	BDL	BDL	0.01	0.07	BDL	0.001	-		2
7	28.0	29.6	4.80	0.6	BDL	0.1	0.06	BDL	BDL	0.10	0.02	0.002	-		2
11	6.2	8.1	4.00	3.0	1.949	1.0	0.15	0.275	0.05	0.59	0.04	0.002	1.25		2
12	2.0	2.3	4.30	2.8	BDL	1.0	0.11	0.271	0.16	-	-	-	-		1
13	5.8	5.9	4.40	2.0	0.886	0.4	0.08	0.161	0.01	0.27	0.17	0.002	1.04		1
21	23.6	22.8	4.60	0.9	0.975	0.4	0.07	0.103	0.03	0.25	0.04	0.002	1.08		2
22	3.8	1.3	5.00	1.7	-	0.9	0.17	-	0.05	-	-	-	-		2
24	BDL	3.3	7.00	1.5	0.620	1.7	0.33	BDL	0.08	1.29	0.79	-	-		3
26	1.0	0.7	-	1.0	BDL	0.9	-	BDL	-	-	-	-	-		1
27	1.6	1.6	4.50	4.6	BDL	19.6	0.77	BDL	1.26	-	-	-	-		2
31	12.2	11.7	4.80	1.0	0.487	1.0	0.11	BDL	0.05	0.65	0.03	0.004	-		1
TOTAL PRECIP 126.0 130.8															
NO. OBS.	15	15	14	15	14	15	14	14	14	10	10	8	-		
A. MEAN	8.4	8.7	4.40	2.2	0.721	2.2	0.24	0.123	0.16	0.56	0.13	0.002	-		
STD. DEV.	8.8	8.7	4.47	2.0	1.161	4.9	0.33	0.202	0.32	0.44	0.24	0.001	-		
MINIMUM	BDL	0.7	3.90	0.6	BDL	BDL	BDL	BDL	0.07	BDL	0.07	0.001	-		
MAXIMUM	28.0	29.6	7.00	8.5	4.209	19.6	1.19	0.737	1.26	1.29	0.79	0.004	-		
P.W. MEAN			4.51	1.3	0.530	0.9	0.10	0.071	0.06	0.41	0.04	0.002			

PRECIP TYPE

- 1 - RAIN
2 - SNOW
3 - MIXED
4 - UNCERTAIN
- - MISSING DATA
BDL - BELOW DETECTION LIMIT

KEJIMKUJIK

APRIL 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	SO ₂
1	1.80	1.22	1.11	1.31	0.89	2.2
2	1.52	0.24	0.96	0.30	0.33	1.7
3	1.47	0.19	0.96	0.26	0.26	1.5
4	1.24	0.11	-	-	-	1.0
5	2.17	0.37	0.58	0.47	0.31	1.0
6	1.50	0.16	0.38	0.29	0.22	1.5
7	1.20	0.18	0.94	0.64	0.27	1.0
8	1.54	0.17	0.44	0.37	0.27	0.4
9	1.63	0.37	1.48	0.78	0.33	1.2
10	2.24	0.48	0.63	0.40	0.53	1.5
11	2.78	0.84	0.31	0.19	0.78	2.8
12	4.33	1.38	0.37	0.27	0.98	5.4
13	4.62	0.90	0.41	0.31	0.84	1.5
14	2.06	0.41	0.55	0.36	0.41	0.7
15	1.18	0.35	0.43	0.24	0.32	2.0
16	2.85	0.96	1.00	0.70	0.63	1.4
17	4.31	1.09	3.58	2.00	0.57	0.5
18	1.15	0.32	1.20	0.64	0.20	0.9
19	1.51	0.85	1.03	0.73	0.29	1.7
20	1.33	0.67	0.58	0.44	0.32	1.4
21	1.60	0.31	0.48	0.35	0.24	bd1
22	1.72	0.32	0.48	0.42	bd1	1.0
23	1.74	0.71	0.70	0.61	0.24	0.9
24	2.30	1.02	0.33	0.30	0.48	2.5
25	4.08	2.37	0.63	0.67	1.00	4.2
26	4.34	1.67	1.34	0.99	0.87	1.1
27	1.03	0.18	0.30	0.24	0.24	1.4
28	bd1	0.08	0.16	bd1	bd1	0.7
29	0.76	0.15	0.52	0.26	bd1	bd1
30	0.99	0.17	0.47	0.20	0.26	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	30	29	29	29	30
A. MEAN	2.03	0.61	0.77	0.51	0.42	1.4
S.D.	1.19	0.54	0.64	0.40	0.29	1.2
MIN.	bd1	0.08	0.16	bd1	bd1	bd1
MAX.	4.62	2.37	3.58	2.00	1.00	5.4

PRECIPITATION CONCENTRATIONS (10^{-3} g l^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO PRECIP	
	STD (mm)	COLL (mm)											+VE/-VE	TYPE
3	14.8	13.7	4.50	1.5	BDL	2.7	0.22	BDL	0.18	1.48	0.08	0.005	-	1
4	2.8	4.9	4.50	3.9	BDL	7.4	0.74	0.245	0.47	4.25	0.43	0.024	-	4
5	0.2	0.7	-	7.5	-	4.3	-	-	-	-	-	-	-	2
6	26.6	21.2	4.70	1.3	BDL	2.8	0.11	BDL	0.17	1.49	0.06	0.005	-	2
7	10.4	10.4	4.80	0.7	BDL	0.9	BDL	BDL	0.06	0.49	0.02	0.002	-	2
8	1.4	1.6	4.40	2.6	-	7.1	0.27	-	0.45	-	-	-	-	2
13	14.4	16.6	4.10	4.2	2.437	1.1	0.27	0.659	0.10	0.67	0.06	0.007	1.07	1
18	2.6	2.3	4.40	1.8	0.753	1.8	0.21	BDL	0.12	1.02	0.06	-	-	1
21	4.2	4.2	4.60	1.4	0.797	1.5	0.20	0.010	0.06	0.37	BDL	0.004	-	1
26	4.0	4.2	4.30	2.5	1.285	2.1	0.21	0.254	0.14	1.12	0.06	0.007	1.03	1
27	43.4	43.3	4.80	0.4	0.222	0.3	BDL	0.013	0.02	0.20	BDL	0.002	-	1
28	33.8	34.5	5.40	BDL	0.044	BDL	BDL	BDL	BDL	0.02	BDL	0.001	-	1
29	1.6	1.6	4.40	0.9	1.418	3.1	0.16	BDL	0.16	-	-	-	-	1
TOTAL PRECIP 160.2 159.2														
NO. OBS.	13	13	12	13	11	13	12	11	12	10	10	9	-	
A. MEAN	12.3	12.2	4.48	2.2	0.632	2.7	0.20	0.107	0.16	1.11	0.08	0.006	-	
STD. DEV.	14.0	13.6	4.71	2.0	0.803	2.3	0.20	0.208	0.15	1.22	0.13	0.007	-	
MINIMUM	0.2	0.7	4.10	BDL	BDL	BDL	BDL	BDL	BDL	0.02	BDL	0.001	-	
MAXIMUM	43.4	43.3	5.40	7.5	2.437	7.4	0.74	0.659	0.47	4.25	0.43	0.024	-	
P.W. MEAN			4.63	1.1	0.372	1.3	0.09	0.074	0.08	0.68	0.03	0.004		

PRECIP TYPE

1 - RAIN
2 - SNOW
3 - MIXED
4 - UNCERTAIN

- - MISSING DATA
BDL - BELOW DETECTION LIMIT

KEJIMKUJIK

MAY 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁻	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	0.79	0.33	0.15	bd1	0.22	0.6
2	2.37	0.98	0.51	0.47	0.45	1.4
3	5.45	0.95	0.22	0.37	0.80	1.0
4	3.96	0.28	bd1	bd1	0.42	0.8
5	1.80	0.22	bd1	bd1	0.23	0.6
6	1.70	0.27	bd1	bd1	0.22	0.8
7	2.28	0.37	bd1	bd1	0.29	1.0
8	3.12	0.44	bd1	bd1	0.43	1.2
9	2.40	0.30	bd1	bd1	0.35	0.8
10	1.55	0.31	0.14	bd1	0.34	0.7
11	bd1	bd1	0.25	bd1	bd1	0.5
12	0.33	0.07	0.15	bd1	bd1	bd1
13	bd1	bd1	0.24	bd1	bd1	bd1
14	bd1	bd1	bd1	bd1	bd1	bd1
15	bd1	bd1	bd1	bd1	bd1	bd1
16	0.49	0.12	bd1	bd1	bd1	0.8
17	0.86	0.21	0.26	bd1	bd1	0.6
18	0.63	0.17	0.15	bd1	bd1	2.1
19	1.73	0.57	0.51	0.35	0.28	1.3
20	4.88	0.85	bd1	0.18	0.68	0.7
21	0.72	0.23	0.15	bd1	bd1	0.7
22	1.00	0.24	0.18	bd1	bd1	0.7
23	0.80	0.34	0.14	bd1	bd1	1.0
24	1.17	0.44	0.25	bd1	bd1	2.2
25	0.92	0.20	bd1	bd1	bd1	1.0
26	2.52	0.70	0.29	0.27	0.52	1.3
27	1.08	0.50	1.47	0.73	bd1	1.3
28	0.69	0.45	0.84	0.45	bd1	0.6
29	1.36	0.26	0.38	bd1	bd1	2.1
30	4.03	0.75	bd1	bd1	0.53	bd1
31	bd1	0.18	bd1	bd1	bd1	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	31	-	-	31
A. MEAN	1.57	0.35	0.20	-	-	0.8
S.D.	1.45	0.27	0.31	-	-	0.6
MIN.	bd1	bd1	bd1	-	-	bd1
MAX.	5.45	0.98	1.47	-	-	2.2

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO4=	NO3-	Cl-	Ca++	* NH4+	Mg++	Na+	K+	TOT P	ION BAL.	PRECIP
	STD (mm)	COLL (mm)											RATIO +VE/-VE	TYPE
3	1.0	1.1	3.80	7.6	-	1.5	-	-	-	-	-	-	-	1
4	3.6	3.6	3.50	11.3	5.050	0.7	0.34	1.068	0.06	0.24	0.10	-	1.22	1
11	11.4	11.4	4.90	0.8	0.102	0.2	0.08	0.013	BDL	0.06	BDL	0.006	-	1
13	2.2	2.3	5.10	0.5	BDL	0.3	0.12	BDL	BDL	0.24	0.04	0.005	-	1
14	2.8	2.6	5.00	0.5	-	0.2	0.14	-	BDL	0.22	BDL	0.007	-	1
19	2.0	2.3	3.70	7.9	-	1.3	1.14	-	BDL	0.74	0.15	0.008	-	1
20	0.8	1.0	4.00	5.0	-	1.0	-	-	-	-	-	-	-	1
24	4.6	4.6	4.40	1.5	0.660	0.5	BDL	0.115	BDL	0.27	0.18	0.026	-	1
25	2.0	1.6	4.30	1.7	-	0.4	0.14	-	BDL	0.40	0.08	0.016	-	1
TOTAL PRECIP	30.4	30.5												
NO. OBS.	9	9	9	9	-	9	7	-	7	7	7	6	-	
A. MEAN	3.4	3.4	4.00	4.1	-	0.7	0.28	-	0.01	0.31	0.08	0.011	-	
STD. DEV.	3.2	3.2	3.97	4.0	-	0.5	0.39	-	0.02	0.21	0.07	0.008	-	
MINIMUM	0.8	1.0	3.50	0.5	-	0.2	BDL	-	BDL	0.06	BDL	0.005	-	
MAXIMUM	11.4	11.4	5.10	11.3	-	1.5	1.14	-	0.06	0.74	0.18	0.026	-	
P.W. MEAN			4.13	3.0	-	0.5	0.19	-	0.01	0.22	0.06	0.011	-	

PRECIP TYPE

- 1 - RAIN
2 - SNOW
3 - MIXED
4 - UNCERTAIN
- - MISSING DATA
BDL - BELOW DETECTION LIMIT

KEJIMKUJIK

JUNE 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO_4^{2-}	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2
1	3.34	0.26	bd1	bd1	0.40	4.4
2	1.52	0.26	bd1	bd1	0.24	1.3
3	1.08	0.45	0.80	0.62	bd1	1.5
4	1.37	0.60	1.84	1.50	bd1	bd1
5	0.92	0.44	0.55	0.40	bd1	1.5
6	bd1	bd1	bd1	bd1	bd1	2.8
7	1.33	0.44	0.61	0.46	bd1	3.6
8	0.86	0.32	0.24	0.19	bd1	2.5
9	0.80	0.29	0.63	0.36	bd1	2.0
10	1.23	0.42	1.04	0.76	bd1	1.5
11	0.92	0.25	1.04	0.86	bd1	0.7
12	2.08	0.32	0.78	0.81	bd1	bd1
13	0.68	0.18	0.99	0.78	bd1	1.9
14	bd1	0.09	bd1	bd1	bd1	1.5
15	1.66	0.21	bd1	bd1	0.29	1.3
16	9.83	1.34	0.65	0.90	1.18	9.9
17	4.85	0.26	bd1	bd1	0.85	0.9
18	3.90	0.46	bd1	bd1	0.76	bd1
19	2.86	0.38	bd1	bd1	0.68	2.0
20	1.73	0.18	bd1	bd1	0.46	3.3
21	3.14	0.74	0.23	0.21	0.68	1.4
22	2.07	0.58	bd1	bd1	0.54	0.7
23	2.75	0.61	bd1	bd1	0.60	0.8
24	1.01	0.29	0.20	bd1	bd1	0.6
25	1.49	0.55	bd1	bd1	bd1	1.8
26	6.88	1.42	bd1	bd1	1.26	1.3
27	0.58	0.22	bd1	bd1	bd1	1.5
28	1.34	0.39	bd1	bd1	0.32	2.1
29	3.23	0.21	bd1	bd1	0.65	4.6
30	1.68	0.34	0.31	0.25	0.40	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	30	-	-	30	30
A. MEAN	2.17	0.42	-	-	0.31	1.9
S.D.	2.06	0.31	-	-	0.38	1.9
MIN.	bd1	bd1	-	-	bd1	bd1
MAX.	9.83	1.42	-	-	1.26	9.9

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO_4^{2-}	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)											+VE/-VE		
2	12.2	11.4	5.00	BDL	BDL	BDL	BDL	BDL	BDL	0.12	0.03	0.003	-		1
6	0.4	BDL	-	-	-	-	-	-	-	-	-	-	-		1
7	0.4	BDL	-	-	-	-	-	-	-	-	-	-	-		1
13	3.0	2.9	4.20	2.8	1.506	1.6	0.35	0.142	0.12	1.11	0.13	0.013	1.18		1
14	18.2	17.3	4.90	BDL	0.133	0.1	BDL	0.009	BDL	0.10	BDL	0.002	-		1
16	1.2	1.1	3.40	20.3	-	4.4	-	-	-	-	-	-	-		1
17	11.2	10.7	4.20	3.3	1.329	0.1	0.06	0.147	BDL	0.20	0.03	0.001	-		1
19	46.8	54.4	5.10	BDL	BDL	BDL	BDL	BDL	BDL	0.03	BDL	0.001	-		1
20	0.4	BDL	-	-	-	-	-	-	-	-	-	-	-		1
23	7.4	6.8	3.80	7.1	3.898	0.4	0.21	0.702	0.02	0.15	0.12	0.005	0.99		1
29	49.4	48.5	4.40	2.1	0.842	0.2	BDL	0.138	BDL	0.10	0.04	0.002	-		1
30	1.0	1.0	-	1.7	-	0.6	-	-	-	-	-	-	-		1
TOTAL PRECIP 151.6 154.1															
NO. OBS.	12	12	8	9	7	9	7	7	7	7	7	7	-		
A. MEAN	12.6	12.8	4.03	4.1	1.101	0.8	0.09	0.163	0.02	0.26	0.05	0.004	-		
STD. DEV.	17.5	18.9	3.88	6.5	1.382	1.4	0.14	0.248	0.04	0.38	0.05	0.004	-		
MINIMUM	0.4	BDL	3.40	BDL	BDL	BDL	BDL	BDL	BDL	0.03	BDL	0.001	-		
MAXIMUM	49.4	54.4	5.10	20.3	3.898	4.4	0.35	0.702	0.12	1.11	0.13	0.013	-		
P.W. MEAN			4.46	1.5	0.623	0.2	0.02	0.096	0.00	0.11	0.03	0.002	-		

PRECIP TYPE

1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN

- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

KEJIMKUJIK

JULY 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Na^+	NH_4^+	
1	0.80	0.37	0.72	0.48	bd1	0.5
2	1.43	0.97	0.66	0.57	0.38	1.5
3	0.66	bd1	0.18	0.22	bd1	bd1
4	0.61	bd1	0.24	0.16	bd1	2.1
5	0.46	0.41	bd1	bd1	bd1	0.9
6	3.33	1.96	0.43	0.56	1.05	4.3
7	5.73	2.09	0.43	0.83	1.30	4.5
8	13.92	1.75	bd1	0.77	2.13	2.9
9	7.22	1.33	bd1	0.12	1.74	2.0
10	1.58	0.65	0.15	0.12	0.67	2.5
11	1.59	0.48	bd1	0.11	0.52	-
12	2.24	0.47	bd1	0.13	0.48	-
13	3.75	0.32	bd1	bd1	0.71	-
14	1.36	0.29	bd1	bd1	0.31	-
15	1.42	0.42	bd1	0.09	0.40	1.0
16	5.82	1.02	bd1	0.15	1.13	3.7
17	10.10	1.19	bd1	0.14	0.88	2.4
18	8.03	0.79	bd1	bd1	0.57	10.9
19	16.87	0.97	bd1	bd1	1.91	7.6
20	6.90	0.75	bd1	0.11	0.61	2.8
21	bd1	0.36	bd1	bd1	bd1	0.9
22	1.37	0.39	0.23	0.23	bd1	0.8
23	1.81	0.38	bd1	0.10	bd1	0.7
24	0.84	0.45	bd1	0.24	bd1	2.3
25	2.00	1.09	0.18	0.35	0.34	3.0
26	3.53	1.06	0.23	0.23	1.03	4.0
27	1.22	0.23	bd1	0.11	bd1	2.1
28	1.21	bd1	bd1	bd1	bd1	bd1
29	0.67	bd1	0.21	0.12	bd1	0.8
30	0.72	0.28	bd1	bd1	bd1	1.1
31	1.22	0.57	bd1	bd1	bd1	1.2

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	31	31	27
A. MEAN	3.50	0.68	-	0.19	0.52	2.5
S.D.	4.09	0.55	-	0.23	0.62	2.4
MIN.	bd1	bd1	-	bd1	bd1	bd1
MAX.	16.87	2.09	-	0.83	2.13	10.9

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)											+VE/-VE		
12	3.0	2.9	4.40	2.0	1.418	0.5	0.08	0.126	0.02	0.28	0.10	0.004	0.85		1
18	0.4	BDL	-	-	-	-	-	-	-	-	-	-	-		1
20	15.2	15.3	5.00	0.6	0.399	0.4	BDL	0.012	BDL	0.10	0.05	0.003	-		1
21	19.4	18.2	5.00	0.9	0.133	1.4	BDL	BDL	0.06	0.60	0.04	0.002	-		1
22	5.8	5.9	5.60	0.4	0.044	0.3	BDL	BDL	BDL	0.13	0.03	0.004	-		1
28	37.6	37.8	4.60	1.1	0.443	0.2	BDL	0.040	BDL	0.03	BDL	0.001	-		1
TOTAL PRECIP	81.4	80.1													
NO. OBS.	6	6	5	5	5	5	5	5	5	5	5	5	-		
A. MEAN	13.6	13.3	4.76	1.0	0.487	0.6	0.02	0.036	0.02	0.23	0.04	0.003	-		
STD. DEV.	13.9	13.9	4.83	0.6	0.547	0.5	0.04	0.053	0.03	0.23	0.04	0.001	-		
MINIMUM	0.4	BDL	4.40	0.4	0.044	0.2	BDL	BDL	BDL	0.03	BDL	0.001	-		
MAXIMUM	37.6	37.8	5.60	2.0	1.418	1.4	0.08	0.126	0.06	0.60	0.10	0.004	-		
P.W. MEAN			4.75	0.9	0.368	0.5	0.00	0.025	0.02	0.20	0.02	0.002			

PRECIP TYPE

1 - RAIN

- - MISSING DATA

2 - SNOW

BDL - BELOW DETECTION LIMIT

3 - MIXED

4 - UNCERTAIN

KEJIMKUJIK

AUGUST 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	SO ₄ ⁻	NO ₃ ⁻	PARTICULATE			GAS SO ₂
			Cl ⁻	Na ⁺	NH ₄ ⁺	
1	3.02	0.81	bd1	bd1	0.49	11.3
2	5.87	0.33	bd1	bd1	1.25	bd1
3	0.59	0.28	bd1	bd1	bd1	bd1
4	0.99	bd1	bd1	bd1	bd1	1.3
5	-	-	-	-	-	-
6	1.73	0.25	0.15	0.23	bd1	bd1
7	1.80	0.33	bd1	0.16	0.30	1.0
8	1.76	0.43	bd1	0.16	0.36	1.8
9	2.09	0.74	0.36	0.34	bd1	1.7
10	6.01	0.63	bd1	bd1	0.80	2.1
11	3.04	0.70	bd1	bd1	0.67	1.4
12	1.27	0.28	bd1	bd1	0.33	0.6
13	0.65	bd1	bd1	bd1	bd1	9.8
14	2.13	0.33	bd1	bd1	0.61	0.8
15	1.65	0.49	bd1	bd1	0.49	4.9
16	1.83	0.52	bd1	bd1	0.54	4.4
17	13.65	2.09	0.45	0.68	2.28	4.2
18	2.24	0.53	bd1	0.13	0.58	0.7
19	2.81	1.07	0.17	0.20	0.44	1.4
20	10.14	2.58	0.37	0.69	2.13	5.3
21	0.86	0.54	0.21	0.10	bd1	1.5
22	0.59	0.39	0.25	0.13	bd1	1.3
23	1.88	0.91	0.32	0.30	0.35	1.0
24	2.90	0.51	0.23	0.26	0.35	0.8
25	3.89	0.33	0.21	0.19	0.61	1.1
26	1.33	0.40	0.35	0.20	bd1	0.6
27	2.66	1.48	0.22	0.29	0.38	3.8
28	0.90	0.28	0.31	0.16	bd1	1.8
29	0.90	0.21	0.42	0.22	0.28	1.3
30	1.79	0.78	0.48	0.32	0.47	2.1
31	2.94	1.37	0.65	0.65	0.37	2.0

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	30	30	30	30	30
A. MEAN	2.80	0.65	0.17	0.18	0.47	2.3
S.D.	2.84	0.57	0.19	0.20	0.56	2.6
MIN.	0.59	bd1	bd1	bd1	bd1	bd1
MAX.	13.65	2.58	0.65	0.69	2.28	11.3

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO PRECIP	
	STD (mm)	COLL (mm)											+VE/-VE	TYPE
2	4.2	4.2	4.80	1.8	1.108	0.4	0.10	0.752	0.02	0.14	0.08	0.011	1.06	1
3	2.8	2.6	4.70	BDL	0.310	0.5	BDL	0.115	BDL	0.19	0.07	0.007	-	1
5	5.2	4.9	4.00	4.7	2.259	1.0	0.08	0.337	0.07	0.61	0.06	0.006	0.96	1
6	1.2	1.3	4.30	1.3	-	0.9	BDL	-	0.02	-	-	-	-	1
9	42.4	44.6	4.90	BDL	0.310	0.3	0.10	0.026	0.06	0.17	0.03	0.002	-	1
10	1.6	1.6	7.10	1.1	0.354	4.1	-	0.995	-	-	-	-	-	1
12	8.8	8.5	5.10	BDL	0.399	0.1	0.06	0.025	BDL	0.03	0.05	0.001	-	1
13	0.4	BDL	-	-	-	-	-	-	-	-	-	-	-	1
17	1.2	1.0	-	7.0	BDL	2.7	-	BDL	-	-	-	-	-	1
23	0.6	0.7	-	3.7	BDL	3.7	-	BDL	-	-	-	-	-	1
24	6.2	4.2	4.60	1.9	0.709	0.5	0.06	0.098	0.03	0.38	0.08	0.005	0.83	1
25	4.4	3.9	4.50	2.2	1.285	2.0	0.11	0.077	0.10	1.07	0.13	-	0.81	1
TOTAL PRECIP	79.0	77.5												
NO. OBS.	12	12	9	11	10	11	8	10	8	7	7	6	-	
A. MEAN	6.6	6.5	4.53	2.2	0.673	1.5	0.06	0.242	0.04	0.37	0.07	0.005	-	
STD. DEV.	11.6	12.2	4.52	2.2	0.701	1.4	0.04	0.351	0.04	0.36	0.03	0.003	-	
MINIMUM	0.4	BDL	4.00	BDL	BDL	0.1	BDL	BDL	BDL	0.03	0.03	0.001	-	
MAXIMUM	42.4	44.6	7.10	7.0	2.259	4.1	0.11	0.995	0.10	1.07	0.13	0.011	-	
P.W. MEAN			4.68	0.9	0.575	0.6	0.09	0.117	0.05	0.25	0.05	0.003		

PRECIP TYPE

1 - RAIN

- - MISSING DATA

2 - SNOW

BDL - BELOW DETECTION LIMIT

3 - MIXED

4 - UNCERTAIN

KEJIMKUJIK

SEPTEMBER 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	2.35	0.46	bd1	0.11	bd1	0.5
2	0.75	bd1	bd1	bd1	bd1	0.5
3	3.44	0.59	bd1	0.11	bd1	1.5
4	1.16	0.67	0.25	0.17	bd1	1.6
5	1.27	0.28	bd1	bd1	bd1	1.7
6	1.41	0.63	bd1	bd1	0.40	4.0
7	0.37	bd1	0.67	0.18	bd1	bd1
8	1.10	0.39	1.10	0.61	bd1	1.8
9	2.40	1.50	0.59	0.60	bd1	2.3
10	8.04	1.38	0.25	0.20	2.10	3.9
11	5.51	0.39	bd1	bd1	1.62	1.5
12	6.89	0.49	bd1	bd1	1.70	2.3
13	19.29	0.67	bd1	bd1	2.18	3.3
14	5.95	0.69	0.13	0.18	1.15	bd1
15	2.10	0.46	0.27	0.22	0.41	bd1
16	3.19	0.27	bd1	0.19	0.46	bd1
17	2.35	0.35	bd1	bd1	0.37	0.7
18	2.04	0.77	0.18	0.25	0.42	0.5
19	1.17	0.44	0.32	0.15	0.30	0.8
20	-	-	-	-	-	-
21	0.58	bd1	bd1	bd1	bd1	bd1
22	0.74	bd1	bd1	bd1	bd1	2.5
23	1.97	0.70	0.26	0.25	bd1	0.8
24	3.46	1.05	0.51	0.40	0.56	8.3
25	4.26	0.42	bd1	bd1	0.63	0.8
26	3.65	0.42	bd1	0.10	0.50	9.7
27	-	-	-	-	-	-
28	2.30	0.21	bd1	0.10	0.36	1.2
29	0.63	0.21	0.94	0.53	bd1	0.6
30	0.96	0.38	0.80	0.46	bd1	0.7

bd1 - BELOW DETECTION LIMIT

NO. OBS.	28	28	28	28	28	28
A. MEAN	3.19	0.49	0.22	0.17	0.47	1.8
S.D.	3.73	0.37	0.32	0.19	0.66	2.3
MIN.	0.37	bd1	bd1	bd1	bd1	bd1
MAX.	19.29	1.50	1.10	0.61	2.18	9.7

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL.	PRECIP TYPE
	STD (mm)	COLL (mm)											RATIO +VE/-VE	
1	3.8	3.6	4.20	4.0	1.994	1.1	0.13	0.320	0.06	0.63	0.29	-	0.87	1
2	23.8	26.1	4.30	2.0	1.019	0.2	0.06	0.092	BDL	0.08	0.03	0.002	-	1
3	2.4	2.3	4.10	3.2	1.994	1.0	0.22	0.364	0.05	0.89	0.24	0.007	1.25	1
20	13.8	13.4	4.50	1.8	0.576	0.3	BDL	0.151	0.01	0.13	0.02	0.006	-	1
21	3.2	3.3	4.40	2.4	0.930	0.4	BDL	0.206	BDL	0.20	0.13	-	-	1
22	22.8	21.8	4.60	1.1	0.532	0.3	BDL	0.055	BDL	0.10	0.02	0.002	-	1
23	5.2	5.2	4.80	0.7	0.310	0.2	BDL	0.009	BDL	0.14	BDL	0.003	-	1
27	2.6	2.6	4.70	0.9	0.443	1.0	0.08	0.039	0.05	0.74	0.14	0.001	1.22	1
28	1.0	1.3	4.10	2.2	-	0.2	-	-	-	-	-	-	-	1
TOTAL PRECIP	78.6	79.6												
NO. OBS.	9	9	9	9	8	9	8	8	8	8	8	6	-	
A. MEAN	8.7	8.8	4.35	2.0	0.975	0.5	0.06	0.154	0.02	0.36	0.11	0.003	-	
STD. DEV.	9.1	9.3	4.61	1.1	0.672	0.4	0.08	0.132	0.03	0.33	0.11	0.002	-	
MINIMUM	1.0	1.3	4.10	0.7	0.310	0.2	BDL	0.009	BDL	0.08	BDL	0.001	-	
MAXIMUM	23.8	26.1	4.80	4.0	1.994	1.1	0.22	0.364	0.06	0.89	0.29	0.007	-	
P.W. MEAN			4.42	1.7	0.805	0.3	0.03	0.109	0.01	0.18	0.05	0.003		

PRECIP TYPE

- 1 - RAIN
2 - SNOW
3 - MIXED
4 - UNCERTAIN
- - MISSING DATA
BDL - BELOW DETECTION LIMIT

KEJIMKUJIK

OCTOBER 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	SO ₄ ⁼	NO ₃ ⁻	PARTICULATE			GAS SO ₂
			Cl ⁻	Na ⁺	NH ₄ ⁺	
1	1.67	bd1	bd1	0.12	bd1	1.0
2	bd1	bd1	0.85	0.47	bd1	bd1
3	0.77	bd1	1.36	0.72	bd1	1.3
4	2.15	0.37	0.14	bd1	0.29	5.4
5	0.34	bd1	bd1	bd1	bd1	1.5
6	4.79	0.43	0.18	0.18	0.48	1.4
7	0.44	bd1	1.10	0.57	bd1	bd1
8	0.58	bd1	0.22	0.19	bd1	5.5
9	0.61	bd1	0.79	0.42	bd1	bd1
10	0.42	bd1	1.07	0.51	bd1	5.3
11	bd1	bd1	bd1	bd1	bd1	0.7
12	1.08	0.37	0.98	0.55	bd1	2.5
13	1.09	0.38	0.35	0.33	bd1	0.5
14	1.05	0.20	0.25	0.19	bd1	bd1
15	4.91	2.58	0.82	0.80	0.97	2.3
16	1.02	0.73	0.58	0.46	bd1	0.7
17	0.42	bd1	0.37	0.19	bd1	bd1
18	1.31	0.51	1.99	1.11	bd1	0.9
19	0.63	0.59	0.18	0.16	bd1	2.3
20	1.28	0.43	0.28	0.14	bd1	1.0
21	1.66	0.38	0.44	0.27	bd1	1.7
22	0.97	bd1	0.39	0.20	bd1	2.3
23	1.05	bd1	0.37	0.16	bd1	2.2
24	0.59	bd1	0.26	0.12	bd1	7.4
25	1.12	0.45	1.19	0.58	bd1	2.6
26	1.54	0.36	0.84	0.42	0.47	0.9
27	0.97	0.39	0.62	0.42	0.28	0.9
28	4.19	0.88	0.26	0.24	1.30	2.8
29	5.55	1.11	bd1	0.10	1.97	4.2
30	7.35	3.24	0.44	0.50	2.23	7.0
31	6.75	2.35	0.30	0.37	2.09	6.5

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	31	31	-	31
A. MEAN	1.82	0.51	0.54	0.34	-	2.3
S.D.	2.00	0.80	0.47	0.25	-	2.2
MIN.	bd1	bd1	bd1	bd1	-	bd1
MAX.	7.35	3.24	1.99	1.11	-	7.4

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO4=	NO3-	Cl-	Ca++	NH4+	Mg++	Na+	K+	TOT P	ION BAL.	PRECIP
	STD (mm)	COLL (mm)											RATIO +VE/-VE	TYPE
1	4.0	4.2	4.60	1.3	0.487	0.2	BDL	0.068	BDL	0.08	0.05	0.001	-	1
7	1.0	1.0	3.60	12.6	-	3.8	-	-	-	-	-	-	-	1
8	5.0	4.9	4.10	4.5	1.196	0.7	0.06	0.267	0.05	0.43	0.09	0.012	0.92	1
9	0.4	BDL	-	-	-	-	-	-	-	-	-	-	-	1
13	0.4	BDL	-	-	-	-	-	-	-	-	-	-	-	1
14	14.8	14.7	4.70	0.9	0.226	0.2	BDL	0.006	0.01	0.10	0.03	0.001	-	1
15	0.6	1.0	-	1.0	-	1.2	-	-	-	-	-	-	-	1
16	2.6	1.3	4.30	1.5	-	2.2	-	-	-	-	-	0.021	-	1
17	0.4	BDL	-	-	-	-	-	-	-	-	-	-	-	1
21	0.4	BDL	-	-	-	-	-	-	-	-	-	-	-	1
31	0.6	1.0	-	19.5	-	2.3	-	-	-	-	-	-	-	1
TOTAL PRECIP	30.2	28.1												
NO. OBS.	11	11	5	7	-	7	-	-	-	-	-	4	-	
A. MEAN	2.7	2.6	4.07	5.9	-	1.5	-	-	-	-	-	0.009	-	
STD. DEV.	4.3	4.4	4.02	7.3	-	1.3	-	-	-	-	-	0.010	-	
MINIMUM	0.4	BDL	3.60	0.9	-	0.2	-	-	-	-	-	0.001	-	
MAXIMUM	14.8	14.7	4.70	19.5	-	3.8	-	-	-	-	-	0.021	-	
P.W. MEAN			4.37	2.4	-	0.7	-	-	-	-	-	0.005	-	

PRECIP TYPE

- 1 - RAIN
2 - SNOW
3 - MIXED
4 - UNCERTAIN

- - MISSING DATA
BDL - BELOW DETECTION LIMIT

KEJIMKUJIK

NOVEMBER 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁻	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	6.58	1.77	0.26	0.30	1.83	8.8
2	5.00	0.62	bd1	0.18	1.19	3.9
3	3.05	0.74	bd1	bd1	0.36	3.8
4	0.66	bd1	0.48	0.25	bd1	bd1
5	1.66	0.37	2.40	1.25	bd1	0.7
6	1.90	0.98	1.20	0.82	0.34	1.6
7	3.37	0.67	0.55	0.35	0.80	5.2
8	4.58	2.27	1.45	1.10	1.17	5.0
9	0.63	bd1	0.52	0.30	bd1	3.8
10	-	-	0.37	0.20	bd1	2.0
11	0.73	0.21	0.80	0.44	bd1	1.0
12	1.97	0.70	2.62	1.41	bd1	0.9
13	0.59	bd1	2.02	0.91	bd1	8.3
14	1.02	bd1	0.62	0.34	bd1	0.6
15	1.69	0.36	1.48	0.95	bd1	7.2
16	0.94	bd1	0.58	0.30	bd1	1.7
17	2.38	1.25	1.30	0.81	bd1	2.0
18	4.00	1.51	0.28	0.15	1.11	7.5
19	1.92	0.44	1.54	0.80	bd1	2.4
20	1.51	0.41	2.43	1.38	bd1	0.9
21	1.27	bd1	2.67	1.41	bd1	2.1
22	1.11	0.30	1.79	0.87	0.40	2.7
23	0.74	bd1	0.48	0.26	bd1	1.1
24	1.05	0.28	0.58	0.32	0.56	bd1
25	1.65	0.37	0.94	0.48	0.70	1.1
26	2.44	1.42	0.80	0.55	0.68	3.0
27	0.56	bd1	0.42	0.23	bd1	3.5
28	1.32	0.54	0.98	0.51	bd1	2.2
29	bd1	bd1	bd1	bd1	bd1	bd1
30	0.80	bd1	0.34	0.17	bd1	1.5

bd1 - BELOW DETECTION LIMIT

NO. OBS.	29	29	30	30	-	30
A. MEAN	1.90	0.52	1.00	0.57	-	2.8
S.D.	1.53	0.60	0.80	0.43	-	2.5
MIN.	bd1	bd1	bd1	bd1	-	bd1
MAX.	6.58	2.27	2.67	1.41	-	8.8

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO +VE/-VE	PRECIP TYPE
	STD (mm)	COLL (mm)												
1	0.6	1.0	-	7.2	-	1.3	-	-	0.05	-	-	-	-	1
2	9.8	10.7	3.70	8.8	4.962	0.6	0.24	0.720	0.05	0.39	0.16	0.002	0.99	1
3	4.2	4.4	4.90	1.0	0.315	1.2	BDL	0.031	0.05	0.71	0.16	-	-	1
4	2.6	2.6	4.50	1.8	0.315	6.4	0.19	BDL	0.38	3.49	0.22	0.009	-	1
5	14.6	18.2	5.60	1.3	0.089	5.7	0.14	BDL	0.38	3.00	0.14	0.002	-	1
9	0.4	0.7	-	-	-	-	-	-	-	-	-	-	-	1
11	1.2	1.6	3.70	5.3	-	5.4	0.37	-	0.40	-	-	-	-	1
13	10.2	10.1	5.10	0.6	0.266	2.8	0.06	BDL	0.15	1.50	0.08	0.003	-	1
14	0.6	0.7	-	1.4	-	2.6	BDL	-	BDL	-	-	-	-	1
15	15.8	16.0	5.10	0.9	0.128	2.6	0.05	BDL	0.15	1.40	0.10	0.001	-	1
21	0.6	0.7	-	-	-	-	-	-	-	-	-	-	-	1
23	4.0	3.9	4.70	1.4	0.261	1.8	0.05	BDL	0.14	1.03	0.11	0.010	-	1
24	4.6	4.6	4.20	2.1	2.184	1.1	0.07	0.090	0.10	0.70	0.10	0.007	1.02	1
26	7.6	8.1	4.30	2.0	2.051	2.4	0.06	0.190	0.16	1.35	0.10	0.008	0.97	4
27	1.2	1.3	5.60	2.5	-	7.0	-	-	-	-	-	-	-	2
28	8.2	9.4	5.20	0.3	0.213	0.6	BDL	0.012	0.03	0.36	0.10	0.004	-	3
29	17.8	19.9	5.50	0.2	0.124	BDL	BDL	BDL	BDL	0.04	0.03	0.001	-	1
TOTAL PRECIP 104.0 113.9														
NO. OBS.	17	17	13	15	11	15	13	11	13	11	11	10	-	
A. MEAN	6.1	6.7	4.33	2.5	0.992	2.7	0.09	0.095	0.15	1.27	0.12	0.005	-	
STD. DEV.	5.8	6.4	4.15	2.6	1.523	2.3	0.11	0.216	0.14	1.09	0.05	0.003	-	
MINIMUM	0.4	0.7	3.70	0.2	0.089	BDL	BDL	BDL	BDL	0.04	0.03	0.001	-	
MAXIMUM	17.8	19.9	5.60	8.8	4.962	7.0	0.37	0.720	0.40	3.49	0.22	0.010	-	
P.W. MEAN			4.47	1.8	0.880	2.2	0.08	0.092	0.14	1.19	0.10	0.003	-	

PRECIP TYPE

1 - RAIN
2 - SNOW
3 - MIXED
4 - UNCERTAIN

- - MISSING DATA
BDL - BELOW DETECTION LIMIT

KEJIMKUJIK (DECEMBER 1982)
-3 -1
PRECIPITATION CONCENTRATIONS (10⁻³ gl⁻¹)

DAY	AMOUNT		PH	SO4=	NO3-	Cl-	Ca++	NH4+	Mg++	Na+	K+	TOT P	ION BAL.	
	STD (mm)	COLL (mm)											RATIO +VE/-VE	PRECIP TYPE
1	1.6	2.0	3.40	5.0	7.664	1.0	-	0.433	-	-	-	0.011	-	1
3	1.8	2.0	3.60	6.4	3.610	2.5	0.23	0.186	0.17	-	-	-	-	1
4	1.6	2.3	4.10	5.5	3.296	3.2	0.48	0.650	0.14	2.15	2.10	-	1.15	1
5	2.2	2.6	3.90	2.3	1.457	2.6	0.09	0.132	0.17	1.55	0.16	0.008	1.54	1
6	14.6	14.7	4.80	0.8	0.447	1.6	BDL	0.025	0.09	0.71	0.05	0.002	-	1
9	6.0	7.8	4.40	1.5	1.834	3.9	0.10	0.132	0.24	1.84	0.11	0.003	0.91	4
10	4.4	4.6	5.00	0.4	0.359	1.0	BDL	BDL	0.05	0.35	0.04	-	-	2
11	7.2	7.2	4.60	0.9	1.475	1.2	0.09	0.154	0.05	0.39	0.10	0.005	0.81	2
12	22.6	16.9	5.50	BDL	0.177	0.4	BDL	BDL	BDL	0.07	0.02	0.004	-	2
16	12.0	11.7	5.10	0.8	0.629	3.2	0.11	0.061	0.19	1.68	0.13	0.005	0.92	1
19	5.2	5.5	5.40	0.4	0.128	0.9	BDL	0.034	0.03	0.30	0.08	0.004	-	4
20	8.6	9.4	5.40	BDL	0.173	0.5	BDL	0.045	0.01	0.10	0.03	0.002	-	4
21	0.2	1.0	-	4.3	-	-	-	-	-	-	-	-	-	2
24	16.6	15.6	4.70	1.0	0.447	0.3	BDL	0.034	0.02	0.22	0.04	0.004	-	4
25	7.2	6.8	4.30	2.6	1.559	1.3	0.19	0.227	0.10	0.77	0.07	0.006	1.01	1
26	3.2	3.3	4.30	2.9	1.426	3.0	0.25	0.156	0.21	1.83	0.13	-	1.02	1
28	6.2	5.5	4.50	2.1	0.935	3.5	0.13	0.159	0.21	1.69	0.09	0.004	0.88	1
29	2.2	2.3	4.50	1.5	1.068	1.7	0.14	0.115	0.13	1.04	0.15	-	1.08	1
31	1.4	1.6	4.40	1.5	1.068	2.0	0.13	0.072	0.11	-	-	-	-	2
TOTAL PRECIP 124.8 122.8														
NO. OBS.	19	19	18	19	18	18	17	18	17	15	15	12	-	-
A. MEAN	6.6	6.5	4.18	2.1	1.542	1.9	0.11	0.145	0.11	0.98	0.22	0.005	-	-
STD. DEV.	6.0	5.0	3.99	1.9	1.817	1.2	0.13	0.163	0.08	0.74	0.52	0.003	-	-
MINIMUM	0.2	1.0	3.40	BDL	0.128	0.3	BDL	BDL	BDL	0.07	0.02	0.002	-	-
MAXIMUM	22.6	16.9	5.50	6.4	7.664	3.9	0.48	0.650	0.24	2.15	2.10	0.011	-	-
P.W. MEAN			4.54	1.1	0.831	1.5	0.06	0.080	0.08	0.71	0.09	0.004	-	-

PRECIP TYPE

1 - RAIN
2 - SNOW
3 - MIXED
4 - UNCERTAIN
- - MISSING DATA
BDL - BELOW DETECTION LIMIT

APPENDIX 8

MONTHLY SUMMARIES OF MEASURED CONCENTRATIONS IN AIR AND PRECIPITATION AT BAIE D'ESPOIR

BAIE D'ESPOIR

JANUARY 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	-	-	-	-	-	-
2	-	-	-	-	-	-
3	-	-	-	-	-	-
4	-	-	-	-	-	-
5	-	-	-	-	-	-
6	-	-	-	-	-	-
7	-	-	-	-	-	-
8	-	-	-	-	-	-
9	-	-	-	-	-	-
10	-	-	-	-	-	-
11	-	-	-	-	-	-
12	-	-	-	-	-	-
13	-	-	-	-	-	-
14	-	-	-	-	-	-
15	-	-	-	-	-	-
16	-	-	-	-	-	-
17	-	-	-	-	-	-
18	-	-	-	-	-	-
19	-	-	-	-	-	-
20	-	-	-	-	-	-
21	-	-	-	-	-	-
22	-	-	-	-	-	-
23	-	-	-	-	-	-
24	-	-	-	-	-	-
25	-	-	-	-	-	-
26	-	-	-	-	-	-
27	1.77	0.31	0.75	0.54	bd1	1.7
28	1.96	1.00	0.61	0.63	bd1	4.7
29	1.83	0.42	1.13	1.02	bd1	2.7
30	1.53	0.39	0.46	0.43	bd1	2.0
31	0.64	0.18	0.24	0.28	bd1	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	-	-	-	-	-	-
A. MEAN	-	-	-	-	-	-
S.D.	-	-	-	-	-	-
MIN.	-	-	-	-	-	-
MAX.	-	-	-	-	-	-

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO +VE/-VE	PRECIP TYPE
	STD (mm)	COLL (mm)												
20	5.5	BDL	-	-	-	-	-	-	-	-	-	-	-	2
21	6.6	1.6	5.40	0.8	0.186	2.0	-	0.008	-	-	-	-	-	2
24	29.0	13.7	-	-	-	-	-	-	-	-	-	-	-	2
25	4.4	9.1	-	-	-	-	-	-	-	-	-	-	-	2
29	2.9	2.0	-	3.6	3.442	292.8	-	0.304	-	-	-	-	-	2
30	2.1	1.0	5.90	2.6	0.656	10.0	-	0.173	-	-	-	0.033	-	2
TOTAL PRECIP	50.5	27.4												
NO. OBS.	6	6	-	-	-	-	-	-	-	-	-	-	-	
A. MEAN	8.4	4.6	-	-	-	-	-	-	-	-	-	-	-	
STD. DEV.	10.2	5.5	-	-	-	-	-	-	-	-	-	-	-	
MINIMUM	2.1	BDL	-	-	-	-	-	-	-	-	-	-	-	
MAXIMUM	29.0	13.7	-	-	-	-	-	-	-	-	-	-	-	
P.W. MEAN			-	-	-	-	-	-	-	-	-	-	-	

PRECIP TYPE

- 1 - RAIN
2 - SNOW
3 - MIXED
4 - UNCERTAIN

- - MISSING DATA
BDL - BELOW DETECTION LIMIT

BAIE D'ESPOIR

FEBRUARY 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	0.97	0.15	0.30	0.26	bd1	bd1
2	bd1	0.07	bd1	bd1	bd1	bd1
3	2.35	0.26	0.70	0.68	bd1	4.7
4	1.56	0.13	0.35	0.30	bd1	1.6
5	1.42	0.28	0.54	0.49	bd1	1.6
6	1.80	0.27	0.75	0.67	bd1	3.1
7	2.49	0.90	0.84	0.84	0.43	6.1
8	1.07	0.14	0.64	0.50	bd1	1.0
9	bd1	0.08	0.15	0.11	bd1	bd1
10	0.96	0.28	0.12	0.17	bd1	0.9
11	1.68	0.67	0.48	0.58	bd1	4.1
12	2.11	0.55	0.17	0.28	bd1	4.1
13	1.22	0.17	0.43	0.33	bd1	bd1
14	0.85	0.07	0.15	0.11	bd1	bd1
15	1.28	0.17	0.19	0.16	bd1	bd1
16	2.48	0.29	0.12	0.14	0.29	2.8
17	2.12	0.18	0.33	0.26	0.33	3.0
18	1.20	0.30	0.83	0.53	bd1	1.8
19	1.15	0.41	1.45	0.98	bd1	1.3
20	bd1	bd1	0.23	0.10	bd1	bd1
21	0.78	0.04	0.50	0.46	bd1	bd1
22	0.40	bd1	0.88	0.85	bd1	bd1
23	bd1	bd1	bd1	bd1	bd1	bd1
24	1.14	0.06	1.67	1.22	bd1	1.5
25	1.07	0.06	0.89	0.66	bd1	1.1
26	1.45	0.10	0.44	0.38	bd1	2.0
27	1.35	0.05	0.11	0.13	bd1	1.3
28	1.13	0.07	bd1	0.07	bd1	1.3

bd1 - BELOW DETECTION LIMIT

NO. OBS.	28	28	28	28	-	28
A. MEAN	1.21	0.20	0.47	0.40	-	1.6
S.D.	0.72	0.21	0.42	0.32	-	1.7
MIN.	bd1	bd1	bd1	bd1	-	bd1
MAX.	2.49	0.90	1.67	1.22	-	6.1

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO4=	NO3-	Cl-	Ca++	NH4+	Mg++	Na+	K+	TOT P	ION BAL.	PRECIP
	STD (mm)	COLL (mm)											RATIO +VE/-VE	
1	14.0	10.4	-	-	-	-	-	-	-	-	-	-	-	2
3	7.9	6.8	5.50	0.9	0.213	2.7	0.19	0.085	0.11	1.44	0.14	0.007	0.93	2
6	-	1.6	-	-	-	-	-	-	-	-	-	-	-	2
9	11.8	BDL	-	-	-	-	-	-	-	-	-	-	-	2
13 (2)	18.8	BDL	-	-	-	-	-	-	-	-	-	-	-	2
16	5.0	BDL	-	-	-	-	-	-	-	-	-	-	-	2
21	9.0	3.9	5.60	1.0	0.576	2.7	0.36	0.173	0.11	1.55	0.34	0.007	1.07	2
22	2.9	BDL	-	-	-	-	-	-	-	-	-	-	-	2
23	21.0	11.4	5.90	0.3	BDL	1.1	0.24	BDL	0.04	0.81	0.16	0.004	-	2
TOTAL PRECIP	71.6	34.1												
NO. OBS.	7	8	-	-	-	-	-	-	-	-	-	-	-	
A. MEAN	10.2	4.3	-	-	-	-	-	-	-	-	-	-	-	
STD. DEV.	6.1	4.7	-	-	-	-	-	-	-	-	-	-	-	
MINIMUM	2.9	BDL	-	-	-	-	-	-	-	-	-	-	-	
MAXIMUM	21.0	11.4	-	-	-	-	-	-	-	-	-	-	-	
P.W. MEAN			-	-	-	-	-	-	-	-	-	-	-	

PRECIP TYPE

1 - RAIN

- - MISSING DATA

2 - SNOW

BDL - BELOW DETECTION LIMIT

3 - MIXED

4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

BAIE D'ESPOIR

MARCH 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2
1	1.50	0.39	0.60	0.58	bd1	bd1
2	bd1	bd1	0.18	0.11	bd1	bd1
3	2.82	0.31	0.72	0.76	bd1	1.9
4	1.08	0.35	0.57	0.50	bd1	1.0
5	2.19	0.18	0.38	0.35	bd1	4.1
6	0.94	0.08	bd1	0.08	bd1	1.2
7	1.14	0.08	0.21	0.15	bd1	bd1
8	2.21	0.15	0.18	0.18	bd1	2.1
9	bd1	0.04	bd1	0.07	bd1	bd1
10	4.71	0.54	0.89	1.15	0.31	1.9
11	6.46	0.25	0.18	0.24	0.54	7.0
12	5.20	0.17	0.18	0.27	0.45	3.2
13	1.49	0.10	bd1	bd1	bd1	bd1
14	2.27	0.31	0.98	1.18	bd1	bd1
15	2.01	0.12	0.68	0.72	bd1	bd1
16	bd1	bd1	0.13	bd1	bd1	bd1
17	2.27	0.17	0.28	0.43	bd1	0.9
18	1.09	0.04	0.14	0.19	bd1	bd1
19	1.01	0.09	0.22	0.32	bd1	bd1
20	1.07	0.09	0.11	0.17	bd1	bd1
21	1.45	0.05	bd1	0.09	bd1	bd1
22	0.78	0.05	0.11	0.13	bd1	bd1
23	bd1	bd1	bd1	bd1	bd1	bd1
24	2.30	0.21	0.22	0.29	bd1	bd1
25	2.72	0.32	1.20	1.19	bd1	bd1
26	1.50	0.24	1.44	1.39	bd1	0.9
27	2.50	0.70	1.46	1.38	bd1	1.2
28	1.71	0.20	1.19	0.85	bd1	1.3
29	2.40	0.14	0.84	0.64	bd1	bd1
30	6.57	0.15	0.58	0.43	-	bd1
31	1.23	0.19	1.26	1.19	bd1	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	31	31	-	-
A. MEAN	2.02	0.18	0.48	0.49	-	-
S.D.	1.68	0.16	0.46	0.44	-	-
MIN.	bd1	bd1	bd1	bd1	-	-
MAX.	6.57	0.70	1.46	1.39	-	-

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)											+VE/-VE		
2	14.9	2.6	5.60	1.9	BDL	2.2	0.71	BDL	0.08	1.62	0.16	-	-	-	2
5	24.0	19.5	-	-	-	-	-	-	-	-	-	-	-	-	2
7	2.8	BDL	-	-	-	-	-	-	-	-	-	-	-	-	2
8	2.5	BDL	-	-	-	-	-	-	-	-	-	-	-	-	2
11	-	6.2	4.70	3.0	0.797	2.4	0.70	0.179	0.15	1.44	0.19	0.009	1.01	-	2
14	9.4	7.5	5.30	1.8	BDL	1.2	0.29	0.134	0.04	0.94	0.31	0.014	-	-	2
21	1.9	BDL	-	-	-	-	-	-	-	-	-	-	-	-	2
25	2.2	2.0	4.40	4.1	0.620	4.8	0.52	0.173	0.31	2.78	0.24	-	0.99	-	2
26	1.2	1.3	5.90	2.7	-	3.8	0.90	-	0.16	2.57	0.72	-	-	-	2
TOTAL PRECIP	58.9	39.1													
NO. OBS.	8	9	-	-	-	-	-	-	-	-	-	-	-	-	
A. MEAN	7.4	4.3	-	-	-	-	-	-	-	-	-	-	-	-	
STD. DEV.	8.3	6.3	-	-	-	-	-	-	-	-	-	-	-	-	
MINIMUM	1.2	BDL	-	-	-	-	-	-	-	-	-	-	-	-	
MAXIMUM	24.0	19.5	-	-	-	-	-	-	-	-	-	-	-	-	
P.W. MEAN			-	-	-	-	-	-	-	-	-	-	-	-	

PRECIP TYPE

- 1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN
- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

BAIE D'ESPOIR

APRIL 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2
1	1.61	0.43	1.46	1.37	bd1	bd1
2	2.32	0.77	1.38	1.47	bd1	1.0
3	1.50	0.08	0.37	0.31	bd1	bd1
4	1.11	0.09	0.37	0.26	bd1	bd1
5	1.20	0.15	bd1	bd1	bd1	bd1
6	1.85	0.26	0.99	0.75	bd1	bd1
7	2.69	0.36	2.45	1.65	0.55	1.3
8	1.98	0.20	0.55	0.40	0.33	1.0
9	1.71	0.31	1.16	1.03	bd1	bd1
10	0.92	-	0.56	0.35	1.49	bd1
11	1.45	0.11	0.78	0.50	0.38	bd1
12	1.98	0.17	0.96	0.65	0.71	bd1
13	0.79	0.16	0.42	0.23	bd1	bd1
14	4.18	0.40	1.16	0.84	0.61	bd1
15	1.69	1.19	1.62	1.25	0.32	2.5
16	1.94	1.12	0.62	0.57	0.31	1.1
17	0.44	0.05	0.20	0.10	bd1	bd1
18	0.90	0.18	1.30	0.67	bd1	0.9
19	1.44	0.20	1.49	0.92	bd1	bd1
20	bd1	bd1	0.19	0.07	bd1	bd1
21	3.12	0.66	1.84	1.12	0.34	1.1
22	0.52	bd1	0.28	0.15	bd1	bd1
23	1.83	0.37	0.76	0.49	bd1	bd1
24	1.90	0.50	1.48	0.93	bd1	bd1
25	7.12	3.04	2.78	3.79	1.18	bd1
26	3.87	1.43	1.53	1.45	0.58	bd1
27	bd1	bd1	0.14	bd1	2.72	bd1
28	2.48	0.31	0.45	0.27	0.50	0.9
29	0.57	0.05	0.19	0.12	bd1	bd1
30	bd1	bd1	bd1	bd1	bd1	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	29	30	30	-	-
A. MEAN	1.77	0.43	0.92	0.72	-	-
S.D.	1.44	0.62	0.71	0.76	-	-
MIN.	bd1	bd1	bd1	bd1	-	-
MAX.	7.12	3.04	2.78	3.79	-	-

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	ION BAL.	
	STD (mm)	COLL (mm)											RATIO +VE/-VE	PRECIP TYPE
1	10.5	10.4	4.60	1.7	0.576	1.8	0.15	0.143	0.12	1.09	0.11	0.002	1.05	1
4	18.6	17.3	5.50	0.5	0.089	0.6	0.08	0.052	0.03	0.33	0.05	0.003	0.90	4
7	19.6	11.7	4.80	0.7	0.266	1.1	0.13	0.080	0.06	0.58	0.06	0.002	1.14	2
9	8.6	5.2	5.50	0.7	0.222	3.2	0.27	0.046	0.18	1.61	0.12	0.014	0.97	2
10	3.2	1.6	4.40	1.6	0.177	3.5	0.95	0.104	0.11	1.99	0.41	0.001	1.48	2
12	13.4	2.9	5.80	0.6	0.222	1.6	0.27	0.062	0.08	0.81	0.18	-	1.03	2
14	-	3.2	4.40	2.2	0.354	1.2	0.13	0.227	0.05	1.04	0.09	0.002	1.28	2
18	2.8	BDL	-	-	-	-	-	-	-	-	-	-	-	2
21	2.9	BDL	-	-	-	-	-	-	-	-	-	-	-	2
28	3.4	BDL	-	-	-	-	-	-	-	-	-	-	-	1
30	8.3	BDL	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL PRECIP	91.3	52.3												
NO. OBS.	10	11	7	7	7	7	7	7	7	7	7	-	7	
A. MEAN	9.1	4.8	4.74	1.1	0.272	1.9	0.28	0.102	0.09	1.06	0.15	-	1.12	
STD. DEV.	6.4	5.9	4.77	0.7	0.156	1.1	0.30	0.065	0.05	0.58	0.12	-	0.20	
MINIMUM	2.8	BDL	4.40	0.5	0.089	0.6	0.08	0.046	0.03	0.33	0.05	-	0.90	
MAXIMUM	19.6	17.3	5.80	2.2	0.576	3.5	0.95	0.227	0.18	1.99	0.41	-	1.48	
P.W. MEAN			4.96	0.8	0.249	1.5	0.20	0.076	0.08	0.81	0.11	-		

PRECIP TYPE

1 - RAIN
2 - SNOW
3 - MIXED
4 - UNCERTAIN

- - MISSING DATA
BDL - BELOW DETECTION LIMIT

BAIE D'ESPOIR

MAY 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2
1	bd1	bd1	bd1	bd1	bd1	bd1
2	bd1	0.09	bd1	bd1	bd1	bd1
3	0.69	0.12	bd1	0.10	bd1	bd1
4	bd1	bd1	bd1	bd1	bd1	bd1
5	1.80	0.16	bd1	bd1	0.42	bd1
6	2.39	0.19	bd1	bd1	0.50	bd1
7	2.15	0.38	bd1	0.08	0.68	bd1
8	bd1	bd1	bd1	bd1	bd1	bd1
9	bd1	bd1	bd1	bd1	bd1	bd1
10	bd1	bd1	0.16	0.10	bd1	bd1
11	bd1	bd1	bd1	bd1	bd1	bd1
12	bd1	0.07	0.14	0.18	bd1	bd1
13	bd1	bd1	bd1	bd1	bd1	bd1
14	0.60	0.11	1.17	1.15	bd1	bd1
15	0.56	0.20	1.55	1.57	bd1	bd1
16	bd1	0.07	0.17	0.15	bd1	bd1
17	bd1	bd1	bd1	bd1	bd1	bd1
18	bd1	bd1	bd1	bd1	bd1	bd1
19	bd1	bd1	bd1	bd1	bd1	bd1
20	bd1	0.12	bd1	bd1	bd1	bd1
21	bd1	0.09	1.02	0.61	bd1	bd1
22	bd1	bd1	0.68	0.34	bd1	bd1
23	bd1	bd1	bd1	bd1	bd1	bd1
24	1.01	0.39	0.57	0.36	bd1	bd1
25	1.39	0.39	0.76	0.65	-	bd1
26	bd1	0.11	0.29	0.16	bd1	bd1
27	bd1	0.10	0.68	0.32	bd1	bd1
28	bd1	bd1	0.24	bd1	bd1	bd1
29	bd1	0.24	0.64	0.39	bd1	bd1
30	bd1	0.15	bd1	bd1	bd1	bd1
31	bd1	0.21	bd1	bd1	bd1	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	-	31	-	-	-	-
A. MEAN	-	0.10	-	-	-	-
S.D.	-	0.12	-	-	-	-
MIN.	-	bd1	-	-	-	-
MAX.	-	0.39	-	-	-	-

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)											+VE/-VE		
1	6.0	BDL	-	-	-	-	-	-	-	-	-	-	-	-	1
2	3.8	BDL	-	-	-	-	-	-	-	-	-	-	-	-	1
4	3.3	2.9	4.70	4.3	1.874	5.9	0.98	0.565	0.09	3.30	1.05	0.011	0.97	-	1
5	5.0	4.2	4.30	4.7	1.688	1.4	1.28	0.649	0.01	0.93	0.59	0.009	1.25	-	1
12	6.1	BDL	-	-	-	-	-	-	-	-	-	-	-	-	1
13	1.4	BDL	-	-	-	-	-	-	-	-	-	-	-	-	1
14	6.2	BDL	-	-	-	-	-	-	-	-	-	-	-	-	1
15	1.6	BDL	-	-	-	-	-	-	-	-	-	-	-	-	1
17	4.3	BDL	-	-	-	-	-	-	-	-	-	-	-	-	1
18	1.5	BDL	-	-	-	-	-	-	-	-	-	-	-	-	1
20	6.8	BDL	-	-	-	-	-	-	-	-	-	-	-	-	1
29	7.9	BDL	-	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL PRECIP	53.9	7.1													
NO. OBS.	12	12	-	-	-	-	-	-	-	-	-	-	-	-	
A. MEAN	4.5	0.6	-	-	-	-	-	-	-	-	-	-	-	-	
STD. DEV.	2.2	1.4	-	-	-	-	-	-	-	-	-	-	-	-	
MINIMUM	1.4	BDL	-	-	-	-	-	-	-	-	-	-	-	-	
MAXIMUM	7.9	4.2	-	-	-	-	-	-	-	-	-	-	-	-	
P.W. MEAN			-	-	-	-	-	-	-	-	-	-	-	-	

PRECIP TYPE

- 1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN
- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

BAIE D'ESPOIR

JUNE 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO ₄ ⁻	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	SO ₂
1	bd1	bd1	bd1	bd1	bd1	bd1
2	bd1	0.25	1.08	0.76	bd1	bd1
3	bd1	0.12	0.64	0.47	bd1	bd1
4	bd1	0.25	bd1	bd1	bd1	bd1
5	bd1	0.17	bd1	bd1	bd1	bd1
6	bd1	0.35	0.60	0.44	bd1	bd1
7	bd1	bd1	bd1	bd1	bd1	bd1
8	-	-	-	-	-	-
9	-	-	-	-	-	-
10	-	-	-	-	-	-
11	-	-	-	-	-	-
12	-	-	-	-	-	-
13	-	-	-	-	-	-
14	-	-	-	-	-	-
15	-	-	-	-	-	-
16	bd1	bd1	bd1	bd1	bd1	bd1
17	bd1	0.05	0.12	bd1	bd1	bd1
18	0.47	0.19	0.13	bd1	bd1	bd1
19	0.88	0.07	bd1	bd1	bd1	bd1
20	0.72	bd1	bd1	bd1	bd1	bd1
21	bd1	0.06	bd1	0.09	bd1	bd1
22	0.57	0.15	0.20	0.24	bd1	bd1
23	1.10	0.10	bd1	bd1	bd1	bd1
24	0.97	0.07	bd1	bd1	0.40	bd1
25	bd1	bd1	bd1	bd1	bd1	bd1
26	bd1	0.05	bd1	bd1	bd1	bd1
27	bd1	0.13	bd1	0.09	bd1	bd1
28	bd1	0.07	bd1	bd1	bd1	bd1
29	0.69	0.14	0.12	0.12	bd1	bd1
30	bd1	bd1	bd1	bd1	bd1	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	-	-	-	-	-	-
A. MEAN	-	-	-	-	-	-
S.D.	-	-	-	-	-	-
MIN.	-	-	-	-	-	-
MAX.	-	-	-	-	-	-

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)											+VE/-VE		
2	6.2	BDL	-	-	-	-	-	-	-	-	-	-	-	-	1
9	2.0	BDL	-	-	-	-	-	-	-	-	-	-	-	-	1
16	18.1	BDL	-	-	-	-	-	-	-	-	-	-	-	-	1
17	0.8	BDL	-	-	-	-	-	-	-	-	-	-	-	-	1
20	25.0	3.4	-	-	-	-	-	-	-	-	-	-	-	-	1
21	2.6	1.6	5.90	0.8	0.310	0.5	0.64	0.270	0.04	0.64	0.16	0.022	2.04	-	1
22	4.5	-	4.60	1.2	0.576	0.5	0.31	BDL	0.03	-	-	-	-	-	1
23	19.2	20.0	4.30	1.3	0.620	0.1	0.08	0.097	BDL	0.15	0.04	0.003	-	-	1
24	3.2	2.6	5.00	1.1	0.354	0.7	0.38	0.062	0.02	0.68	0.33	0.027	1.48	-	1
29	5.0	4.6	4.80	1.3	0.576	0.8	0.09	0.062	0.03	0.45	0.16	0.011	0.84	-	1
30	25.0	29.3	5.20	0.4	0.266	0.3	BDL	0.017	BDL	0.12	0.03	0.003	-	-	1
TOTAL PRECIP 111.6 61.5															
NO. OBS.	11	10	-	-	-	-	-	-	-	-	-	-	-	-	-
A. MEAN	10.1	6.1	-	-	-	-	-	-	-	-	-	-	-	-	-
STD. DEV.	9.6	10.1	-	-	-	-	-	-	-	-	-	-	-	-	-
MINIMUM	0.8	BDL	-	-	-	-	-	-	-	-	-	-	-	-	-
MAXIMUM	25.0	29.3	-	-	-	-	-	-	-	-	-	-	-	-	-
P.W. MEAN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PRECIP TYPE

1 - RAIN

- - MISSING DATA

2 - SNOW

BDL - BELOW DETECTION LIMIT

3 - MIXED

4 - UNCERTAIN

BAIE D'ESPOIR

JULY 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	SO ₂
1	1.09	0.19	0.52	bd1	bd1	bd1
2	1.44	0.64	2.58	1.21	0.23	bd1
3	1.58	0.92	2.87	1.32	0.21	bd1
4	bd1	0.24	0.84	bd1	bd1	bd1
5	bd1	0.17	bd1	bd1	bd1	bd1
6	1.24	0.75	0.98	bd1	bd1	bd1
7	7.62	0.67	bd1	bd1	1.28	bd1
8	4.15	1.55	2.26	1.34	0.79	bd1
9	6.31	1.61	1.46	1.12	1.07	bd1
10	1.59	0.19	bd1	bd1	0.45	bd1
11	bd1	bd1	bd1	bd1	bd1	bd1
12	0.66	0.19	bd1	bd1	0.24	bd1
13	bd1	bd1	bd1	bd1	bd1	bd1
14	1.23	0.12	bd1	bd1	0.28	bd1
15	bd1	0.15	bd1	bd1	bd1	bd1
16	bd1	0.11	bd1	bd1	bd1	bd1
17	0.65	bd1	bd1	bd1	bd1	bd1
18	1.55	0.24	0.48	bd1	0.23	1.4
19	3.80	0.23	bd1	bd1	0.20	bd1
20	4.21	0.26	bd1	bd1	0.26	bd1
21	bd1	0.12	bd1	bd1	bd1	1.3
22	0.84	bd1	bd1	bd1	0.22	bd1
23	1.87	0.57	bd1	bd1	0.37	bd1
24	bd1	bd1	bd1	bd1	bd1	bd1
25	bd1	0.17	bd1	bd1	bd1	bd1
26	1.23	0.20	bd1	bd1	bd1	bd1
27	bd1	bd1	bd1	bd1	bd1	bd1
28	bd1	0.16	bd1	bd1	bd1	bd1
29	bd1	bd1	bd1	bd1	bd1	bd1
30	bd1	0.14	1.07	bd1	bd1	bd1
31	0.77	0.40	0.50	bd1	bd1	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	-	-	-
A. MEAN	1.35	0.32	-	-	-	-
S.D.	1.93	0.41	-	-	-	-
MIN.	bd1	bd1	-	-	-	-
MAX.	7.62	1.61	-	-	-	-

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH										ION BAL.	
	STD (mm)	COLL (mm)		SO4=	NO3-	Cl-	Ca++	NH4+	Mg++	Na+	K+	TOT P	RATIO +VE/-VE	PRECIP TYPE
3	4.5	2.6	4.70	0.9	0.576	0.8	BDL	0.040	0.04	0.43	0.06	0.007	-	1
5	5.4	4.2	5.10	0.6	0.310	0.9	BDL	BDL	0.03	0.52	0.15	0.009	-	1
13	10.3	9.4	5.50	0.8	0.975	0.5	0.10	0.097	0.01	0.57	0.21	0.032	0.92	1
14	5.0	4.6	4.90	0.7	0.487	0.5	BDL	0.059	0.02	0.29	0.06	0.004	-	1
16	5.0	3.9	5.80	1.1	0.576	1.1	0.11	0.244	BDL	0.49	0.37	0.005	-	1
18	1.8	BDL	-	-	-	-	-	-	-	-	-	-	-	1
19	16.7	16.9	4.20	3.0	1.551	0.5	0.07	0.417	BDL	0.09	0.07	0.003	-	1
20	5.6	3.7	4.10	4.6	2.259	0.8	0.19	0.424	0.01	0.45	0.17	0.006	0.89	1
21	5.2	BDL	-	-	-	-	-	-	-	-	-	-	-	1
22	26.0	42.3	5.60	0.7	0.222	1.1	0.05	0.045	BDL	0.33	0.17	0.005	-	1
23	1.0	BDL	-	-	-	-	-	-	-	-	-	-	-	1
24	2.0	BDL	-	-	-	-	-	-	-	-	-	-	-	1
25	4.6	3.9	5.20	0.8	0.443	1.0	0.09	0.086	0.02	0.44	0.26	0.006	0.81	1
26	4.8	5.2	4.50	1.7	1.772	0.7	0.13	0.192	0.02	0.39	0.23	0.005	0.87	1
27	1.0	BDL	-	-	-	-	-	-	-	-	-	-	-	1
29	11.0	7.8	4.60	1.2	0.975	0.7	0.08	0.092	0.03	0.37	0.12	0.007	0.92	1
TOTAL PRECIP				109.9	104.5									
NO. OBS.	16	16	11	11	11	11	11	11	11	11	11	11	-	
A. MEAN	6.9	6.5	4.64	1.5	0.922	0.8	0.07	0.154	0.02	0.40	0.17	0.008	-	
STD. DEV.	6.5	10.5	4.58	1.2	0.666	0.2	0.06	0.149	0.01	0.13	0.10	0.008	-	
MINIMUM	1.0	BDL	4.10	0.6	0.222	0.5	BDL	BDL	BDL	0.09	0.06	0.003	-	
MAXIMUM	26.0	42.3	5.80	4.6	2.259	1.1	0.19	0.424	0.04	0.57	0.37	0.032	-	
P.W. MEAN			4.64	1.5	0.862	0.8	0.07	0.157	0.01	0.35	0.16	0.008		

PRECIP TYPE

1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN

- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

BAIE D'ESPOIR

AUGUST 1982

AIR CONCENTRATIONS (10^{-6}gm^{-3})

DAY	PARTICULATE					GAS
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	0.63	0.27	bd1	bd1	bd1	2.4
2	0.88	0.16	0.74	bd1	bd1	bd1
3	bd1	0.13	1.16	bd1	bd1	bd1
4	bd1	bd1	0.75	bd1	bd1	bd1
5	bd1	bd1	0.66	bd1	bd1	bd1
6	bd1	bd1	bd1	bd1	bd1	bd1
7	bd1	0.26	bd1	bd1	bd1	bd1
8	bd1	bd1	bd1	bd1	bd1	bd1
9	-	-	-	-	-	-
10	-	-	-	-	-	-
11	-	-	-	-	-	-
12	-	-	-	-	-	-
13	-	-	-	-	-	-
14	-	-	-	-	-	-
15	-	-	-	-	-	-
16	-	-	-	-	-	-
17	-	-	-	-	-	-
18	-	-	-	-	-	-
19	-	-	-	-	-	-
20	-	-	-	-	-	-
21	-	-	-	-	-	-
22	-	-	-	-	-	-
23	0.52	0.25	0.56	bd1	bd1	bd1
24	1.21	0.56	0.67	bd1	bd1	bd1
25	3.01	0.35	bd1	bd1	0.37	bd1
26	1.82	0.32	0.50	bd1	0.32	bd1
27	1.41	0.60	1.52	0.84	0.16	bd1
28	1.22	0.37	1.33	0.73	bd1	0.8
29	0.69	0.14	1.15	0.57	bd1	bd1
30	0.43	0.14	0.67	bd1	bd1	bd1
31	1.09	0.42	1.00	0.52	bd1	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	-	-	-	-	-	-
A. MEAN	-	-	-	-	-	-
S.D.	-	-	-	-	-	-
MIN.	-	-	-	-	-	-
MAX.	-	-	-	-	-	-

PRECIPITATION CONCENTRATIONS (10^{-3}gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)											+VE/-VE		
5	8.0	BDL	-	-	-	-	-	-	-	-	-	-	-	-	1
10	2.2	1.8	4.60	1.6	1.816	3.7	0.21	0.243	0.14	2.05	1.05	0.008	1.05	-	1
13	21.0	20.4	4.50	0.5	BDL	0.3	-	BDL	-	-	-	-	-	-	1
14	7.0	4.6	5.20	0.3	0.222	0.3	BDL	0.012	BDL	0.16	0.03	0.003	-	-	1
18	5.0	4.2	5.50	2.3	1.506	2.0	0.29	0.446	0.06	1.25	0.90	0.023	0.95	-	1
24	3.1	2.8	4.70	2.9	1.639	1.9	0.22	0.320	0.11	1.33	0.25	-	0.87	-	1
25	2.4	2.6	4.60	BDL	0.620	0.3	0.05	0.040	0.02	0.33	0.04	-	-	-	1
26	8.2	7.5	4.70	1.4	0.709	1.4	0.09	0.223	0.08	0.98	0.19	0.037	1.11	-	1
28	1.9	BDL	-	-	-	-	-	-	-	-	-	-	-	-	1
31	5.1	5.7	4.20	3.3	1.329	2.3	0.07	0.163	0.13	1.25	0.08	0.005	0.93	-	1
TOTAL PRECIP	63.9	49.6													
NO. OBS.	10	10	8	8	8	8	-	8	-	-	-	-	-	-	
A. MEAN	6.4	5.0	4.61	1.5	0.980	1.5	-	0.181	-	-	-	-	-	-	
STD. DEV.	5.7	5.9	4.74	1.2	0.683	1.2	-	0.159	-	-	-	-	-	-	
MINIMUM	1.9	BDL	4.20	BDL	BDL	0.3	-	BDL	-	-	-	-	-	-	
MAXIMUM	21.0	20.4	5.50	3.3	1.816	3.7	-	0.446	-	-	-	-	-	-	
P.W. MEAN			4.59	1.2	0.597	1.0	-	0.122	-	-	-	-	-	-	

PRECIP TYPE

1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN

- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

BAIE D'ESPOIR

SEPTEMBER 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2
1	1.44	0.43	0.60	bd1	0.26	bd1
2	bd1	bd1	bd1	bd1	bd1	bd1
3	3.05	0.35	bd1	bd1	0.33	bd1
4	0.67	0.18	0.54	bd1	bd1	bd1
5	bd1	bd1	bd1	bd1	bd1	bd1
6	2.00	0.58	bd1	bd1	0.35	bd1
7	bd1	bd1	bd1	bd1	bd1	bd1
8	bd1	0.12	bd1	bd1	bd1	bd1
9	0.73	0.22	0.45	bd1	bd1	bd1
10	4.19	0.64	0.73	0.52	0.57	bd1
11	bd1	bd1	bd1	bd1	bd1	bd1
12	bd1	0.09	bd1	bd1	bd1	bd1
13	-	0.38	bd1	bd1	1.40	bd1
14	-	0.57	bd1	bd1	1.36	bd1
15	0.87	0.10	bd1	bd1	bd1	bd1
16	bd1	bd1	0.78	bd1	bd1	bd1
17	bd1	bd1	bd1	bd1	bd1	bd1
18	bd1	bd1	bd1	bd1	bd1	bd1
19	1.35	0.30	0.56	bd1	0.16	bd1
20	0.76	0.15	1.10	0.56	bd1	bd1
21	0.57	bd1	bd1	bd1	bd1	bd1
22	1.16	0.18	bd1	bd1	0.15	bd1
23	2.22	0.50	0.42	bd1	0.18	bd1
24	2.06	0.36	1.49	0.62	0.22	bd1
25	bd1	bd1	bd1	bd1	bd1	bd1
26	bd1	bd1	bd1	bd1	bd1	bd1
27	3.57	0.30	bd1	bd1	0.36	bd1
28	0.71	0.09	bd1	bd1	bd1	bd1
29	0.68	0.16	1.47	0.52	bd1	bd1
30	2.23	0.37	0.53	bd1	0.31	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	28	30	-	-	-	-
A. MEAN	1.01	0.20	-	-	-	-
S.D.	1.19	0.20	-	-	-	-
MIN.	bd1	bd1	-	-	-	-
MAX.	4.19	0.64	-	-	-	-

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)											+VE/-VE		
1	-	-	5.40	0.4	0.177	0.1	BDL	BDL	BDL	0.09	BDL	-	-	-	4
2	21.2	20.5	-	-	-	-	-	-	-	-	-	-	-	-	1
3	21.6	19.7	4.90	0.7	0.354	0.6	BDL	BDL	0.04	0.43	0.06	0.005	-	-	1
4	1.6	BDL	-	-	-	-	-	-	-	-	-	-	-	-	1
15	8.2	7.2	4.40	3.1	0.797	0.4	0.07	0.303	0.03	0.28	0.07	0.004	0.85	-	1
16	5.0	5.9	5.40	1.0	0.266	1.0	0.08	0.070	0.04	0.71	0.26	0.015	0.98	-	1
17	1.6	BDL	-	-	-	-	-	-	-	-	-	-	-	-	1
21	15.6	13.7	5.30	0.3	0.089	0.1	BDL	0.019	BDL	0.10	0.04	0.003	-	-	1
22	4.2	3.4	5.20	0.4	0.177	0.1	BDL	0.010	BDL	0.07	BDL	0.009	-	-	1
23	8.0	8.5	5.20	0.4	0.222	0.3	BDL	BDL	BDL	0.15	0.08	0.014	-	-	1
27	4.0	3.3	5.30	0.8	0.310	0.6	BDL	0.025	0.02	0.33	0.26	0.006	-	-	1
28	4.8	4.9	5.30	0.5	0.044	0.1	BDL	BDL	BDL	0.04	0.04	0.001	-	-	1
30	4.0	3.6	4.60	2.0	0.310	1.3	0.13	BDL	0.07	0.71	0.03	-	-	-	1
TOTAL PRECIP	99.8	90.7													
NO. OBS.	12	12	-	-	-	-	-	-	-	-	-	-	-	-	
A. MEAN	8.3	7.6	-	-	-	-	-	-	-	-	-	-	-	-	
STD. DEV.	7.2	6.9	-	-	-	-	-	-	-	-	-	-	-	-	
MINIMUM	1.6	BDL	-	-	-	-	-	-	-	-	-	-	-	-	
MAXIMUM	21.6	20.5	-	-	-	-	-	-	-	-	-	-	-	-	
P.W. MEAN			-	-	-	-	-	-	-	-	-	-	-	-	

PRECIP TYPE

1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN

- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

BAIE D'ESPOIR

OCTOBER 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Na^+	NH_4^+	SO_2
1	bd1	bd1	bd1	bd1	bd1	bd1
2	bd1	bd1	bd1	bd1	bd1	bd1
3	bd1	bd1	0.66	bd1	bd1	bd1
4	bd1	bd1	bd1	bd1	bd1	bd1
5	bd1	bd1	0.77	bd1	bd1	bd1
6	1.12	0.33	0.98	0.56	bd1	bd1
7	bd1	bd1	0.49	bd1	bd1	bd1
8	bd1	bd1	0.32	bd1	bd1	bd1
9	bd1	bd1	0.60	bd1	bd1	bd1
10	bd1	bd1	0.73	bd1	bd1	bd1
11	bd1	bd1	bd1	bd1	bd1	bd1
12	bd1	bd1	bd1	bd1	bd1	bd1
13	bd1	bd1	bd1	bd1	0.18	bd1
14	0.70	0.34	1.55	0.89	0.16	bd1
15	0.52	0.20	bd1	bd1	bd1	bd1
16	5.17	2.44	1.44	1.35	0.97	1.1
17	0.64	0.18	0.60	bd1	bd1	bd1
18	bd1	bd1	0.65	bd1	bd1	bd1
19	1.09	0.48	1.14	0.73	0.18	bd1
20	bd1	0.12	0.34	bd1	bd1	bd1
21	0.83	0.32	1.19	0.58	0.19	bd1
22	bd1	0.17	0.32	bd1	bd1	bd1
23	bd1	bd1	0.27	bd1	bd1	bd1
24	1.64	0.57	2.21	1.21	0.31	bd1
25	bd1	bd1	0.55	bd1	bd1	0.9
26	0.42	0.09	0.82	bd1	0.19	bd1
27	4.03	2.36	0.83	1.00	0.61	3.3
28	bd1	0.08	0.40	bd1	bd1	bd1
29	bd1	0.11	0.40	bd1	bd1	bd1
30	6.70	1.19	bd1	bd1	1.27	1.5
31	2.84	0.60	bd1	bd1	0.81	0.9

bd1 - BELOW DETECTION LIMIT

NO. OBS.	-	31	31	-	-	-
A. MEAN	-	0.31	0.56	-	-	-
S.D.	-	0.62	0.54	-	-	-
MIN.	-	bd1	bd1	-	-	-
MAX.	-	2.44	2.21	-	-	-

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	$\text{SO}_4^{=}$	NO_3^-	Cl^-	Ca^{++}	NH_4^+	Mg^{++}	Na^+	K^+	TOT P	ION BAL. RATIO +VE/-VE	PRECIP TYPE
	STD (mm)	COLL (mm)												
1	7.0	6.7	4.20	4.4	2.171	0.6	0.27	0.582	0.04	0.30	0.10	0.002	0.89	1
2	24.4	23.0	5.20	0.5	0.133	0.2	BDL	0.025	BDL	0.03	BDL	0.016	-	1
3	11.0	16.4	5.70	0.3	0.089	0.4	BDL	0.014	0.02	0.22	0.12	0.008	-	1
4	12.5	5.7	6.20	0.3	0.089	0.5	0.07	0.062	0.02	0.29	0.20	0.003	0.88	1
14	6.1	5.5	5.00	0.7	0.222	1.1	BDL	0.035	0.07	0.65	0.14	0.010	-	1
15	5.2	5.0	5.60	0.4	0.044	0.6	BDL	0.041	0.02	0.40	0.16	0.006	-	1
16	10.1	9.8	4.60	1.4	0.443	0.5	BDL	0.157	0.02	0.29	0.10	0.003	-	1
21	3.0	2.3	4.60	2.1	0.709	6.8	0.20	0.088	0.34	3.83	0.85	0.020	1.03	1
30	1.9	1.3	4.00	4.9	1.772	4.5	0.29	0.435	0.22	-	-	-	-	1
TOTAL PRECIP 81.2 75.7														
NO. OBS.	9	9	9	9	9	9	9	9	9	8	8	8	-	
A. MEAN	9.0	8.4	4.58	1.7	0.630	1.7	0.09	0.160	0.08	0.75	0.21	0.009	-	
STD. DEV.	6.8	7.0	4.47	1.8	0.795	2.3	0.13	0.205	0.12	1.26	0.27	0.007	-	
MINIMUM	1.9	1.3	4.00	0.3	0.044	0.2	BDL	0.014	BDL	0.03	BDL	0.002	-	
MAXIMUM	24.4	23.0	6.20	4.9	2.171	6.8	0.29	0.582	0.34	3.83	0.85	0.020	-	
P.W. MEAN			4.82	1.1	0.395	0.8	0.05	0.107	0.04	0.37	0.12	0.009		

PRECIP TYPE

1 - RAIN
2 - SNOW
3 - MIXED
4 - UNCERTAIN

- - MISSING DATA
BDL - BELOW DETECTION LIMIT

BAIE D'ESPOIR

NOVEMBER 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	0.60	0.17	0.29	bd1	0.20	bd1
2	bd1	bd1	bd1	bd1	bd1	bd1
3	1.16	0.34	1.48	0.80	bd1	bd1
4	bd1	bd1	bd1	bd1	bd1	1.2
5	1.16	0.65	1.08	0.60	bd1	bd1
6	bd1	bd1	bd1	bd1	bd1	1.5
7	bd1	bd1	bd1	bd1	bd1	bd1
8	bd1	bd1	0.78	bd1	bd1	bd1
9	bd1	0.73	0.45	bd1	bd1	bd1
10	1.34	0.28	1.28	0.61	bd1	bd1
11	1.13	0.39	2.73	1.30	bd1	bd1
12	0.83	0.20	3.00	1.37	bd1	0.9
13	bd1	bd1	bd1	bd1	bd1	bd1
14	bd1	bd1	bd1	bd1	bd1	bd1
15	1.11	0.18	2.44	1.23	bd1	1.0
16	bd1	bd1	bd1	bd1	bd1	bd1
17	2.47	0.28	bd1	bd1	0.18	1.4
18	0.51	bd1	0.62	bd1	bd1	bd1
19	0.56	0.25	0.71	bd1	bd1	bd1
20	1.89	0.43	2.05	0.85	bd1	1.3
21	0.60	0.12	0.89	bd1	bd1	bd1
22	0.64	0.16	bd1	bd1	bd1	bd1
23	bd1	bd1	bd1	bd1	bd1	bd1
24	3.58	1.18	1.79	1.19	0.47	2.4
25	0.60	0.17	0.97	0.52	bd1	bd1
26	0.51	bd1	0.36	bd1	bd1	0.8
27	0.90	0.11	0.95	0.50	bd1	bd1
28	1.32	0.24	1.13	0.62	0.14	bd1
29	bd1	bd1	bd1	bd1	bd1	bd1
30	bd1	bd1	bd1	bd1	bd1	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	30	30	-	-	-
A. MEAN	0.70	0.19	0.77	-	-	-
S.D.	0.84	0.27	0.89	-	-	-
MIN.	bd1	bd1	bd1	-	-	-
MAX.	3.58	1.18	3.00	-	-	-

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO4=	NO3-	Cl-	Ca++	NH4+	Mg++	Na+	K+	TOT P	ION BAL.	PRECIP
	STD (mm)	COLL (mm)											RATIO +VE/-VE	TYPE
1	0.8	BDL	-	-	-	-	-	-	-	-	-	-	-	1
6	5.2	5.2	4.80	1.3	0.580	2.3	0.11	0.134	0.15	1.31	0.18	0.008	1.00	1
12	1.5	2.0	3.80	6.8	2.149	16.4	0.37	0.334	0.98	-	-	-	-	1
14	4.3	BDL	-	-	-	-	-	-	-	-	-	-	-	1
16	10.0	12.4	5.60	1.4	0.270	5.8	0.12	0.070	0.32	3.12	0.31	0.012	0.92	1
17	1.8	1.6	4.10	2.6	0.673	5.2	0.15	0.049	0.31	2.77	0.17	-	1.13	1
23	6.1	5.2	5.60	0.5	0.177	0.7	BDL	0.111	0.04	0.42	0.15	0.009	-	1
24	34.8	31.6	5.60	BDL	0.089	0.3	BDL	BDL	0.01	0.15	BDL	0.004	-	1
26	16.7	11.9	5.20	BDL	0.226	0.2	BDL	BDL	0.01	0.09	BDL	0.007	-	2
30	13.1	10.4	5.50	BDL	0.226	0.6	BDL	BDL	0.02	0.61	0.10	0.007	-	2
TOTAL PRECIP	94.3	80.3												
NO. OBS.	10	10	8	8	8	8	8	8	8	7	7	6	-	
A. MEAN	9.4	8.0	4.47	1.6	0.549	3.9	0.09	0.087	0.23	1.21	0.13	0.008	-	
STD. DEV.	10.3	9.5	4.25	2.3	0.677	5.5	0.13	0.112	0.33	1.26	0.11	0.003	-	
MINIMUM	0.8	BDL	3.80	BDL	0.089	0.2	BDL	BDL	0.01	0.09	BDL	0.004	-	
MAXIMUM	34.8	31.6	5.60	6.8	2.149	16.4	0.37	0.334	0.98	3.12	0.31	0.012	-	
P.W. MEAN			5.08	0.4	0.236	1.4	0.03	0.030	0.08	0.69	0.07	0.006		

PRECIP TYPE

- 1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN
- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

BAIE D'ESPOIR (DECEMBER 1982)
-3 -1
PRECIPITATION CONCENTRATIONS (10⁻³ g/l)

DAY	AMOUNT		PH	SO4=	NO3-	Cl-	Ca++	NH4+	Mg++	Na+	K+	TOT P	ION BAL.	
	STD (mm)	COLL (mm)											RATIO +VE/-VE	PRECIP TYPE
3	0.8	1.0	-	-	-	-	-	-	-	-	-	-	-	2
4	4.2	4.2	-	1.1	0.204	2.6	0.38	0.015	0.16	-	-	-	-	2
6	7.0	4.9	5.00	0.9	0.337	0.7	0.11	0.030	0.05	0.42	0.10	0.004	0.96	1
9	16.9	10.7	5.00	0.7	0.288	0.6	0.05	0.022	0.05	0.37	0.04	0.002	0.92	2
10	1.0	1.6	4.90	1.3	0.111	3.1	0.16	BDL	0.18	1.64	0.14	-	-	2
11	13.8	10.1	5.70	0.3	0.066	0.3	BDL	BDL	0.02	0.20	0.04	0.008	-	1
12	43.6	19.5	5.50	0.3	0.106	BDL	BDL	BDL	BDL	0.08	BDL	0.003	-	4
19	6.0	5.9	5.20	2.2	1.395	6.0	0.32	0.166	0.40	3.54	0.46	0.007	0.96	3
20	8.0	8.5	5.40	0.5	0.089	0.8	BDL	BDL	0.05	0.48	0.06	0.002	-	2
22	8.0	8.1	4.80	0.8	0.536	0.8	BDL	0.008	0.04	0.40	0.07	0.004	-	3
25	5.8	5.9	4.90	1.2	0.399	1.9	0.09	0.044	0.09	0.95	0.13	0.006	0.84	3
26	2.4	3.9	4.70	1.5	0.625	1.1	0.11	0.041	0.06	0.67	0.12	0.002	0.91	3
28	6.2	6.5	5.20	1.0	0.399	1.4	0.09	0.059	0.08	0.84	0.22	0.012	0.91	2
TOTAL PRECIP 123.7 90.8														
NO. OBS. 13 13 11 12 12 12 12 12 12 11 11 10 -														
A. MEAN 9.5 7.0 5.03 1.0 0.380 1.6 0.11 0.032 0.10 0.87 0.13 0.005 -														
STD. DEV. 11.2 4.8 5.25 0.5 0.368 1.7 0.13 0.047 0.11 0.98 0.13 0.003 -														
MINIMUM 0.8 1.0 4.70 0.3 0.066 BDL BDL BDL BDL 0.08 BDL 0.002 -														
MAXIMUM 43.6 19.5 5.70 2.2 1.395 6.0 0.38 0.166 0.40 3.54 0.46 0.012 -														
P.W. MEAN 5.19 0.7 0.272 0.9 0.05 0.020 0.05 0.49 0.07 0.004														

PRECIP TYPE

- 1 - RAIN
 - 2 - SNOW
 - 3 - MIXED
 - 4 - UNCERTAIN
- - MISSING DATA
BDL - BELOW DETECTION LIMIT

APPENDIX 9

MONTHLY SUMMARIES OF MEASURED CONCENTRATIONS IN AIR AND PRECIPITATION AT CREE LAKE

CREE LAKE

JULY 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS SO ₂
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	
1	-	-	-	-	-	-
2	-	-	-	-	-	-
3	-	-	-	-	-	-
4	-	-	-	-	-	-
5	-	-	-	-	-	-
6	-	-	-	-	-	-
7	-	-	-	-	-	-
8	-	-	-	-	-	-
9	-	-	-	-	-	-
10	-	-	-	-	-	-
11	-	-	-	-	-	-
12	-	-	-	-	-	-
13	-	-	-	-	-	-
14	-	-	-	-	-	-
15	-	-	-	-	-	-
16	-	-	-	-	-	-
17	-	-	-	-	-	-
18	-	-	-	-	-	-
19	-	-	-	-	-	-
20	-	-	-	-	-	-
21	-	-	-	-	-	-
22	-	-	-	-	-	-
23	-	-	-	-	-	-
24	-	-	-	-	-	-
25	-	-	-	-	-	-
26	-	-	-	-	-	-
27	-	-	-	-	-	-
28	bd1	0.04	bd1	bd1	bd1	bd1
29	0.91	0.29	bd1	bd1	0.68	3.8
30	0.47	0.12	bd1	bd1	0.34	1.5
31	bd1	bd1	bd1	bd1	bd1	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	-	-	-	-	-	-
A. MEAN	-	-	-	-	-	-
S.D.	-	-	-	-	-	-
MIN.	-	-	-	-	-	-
MAX.	-	-	-	-	-	-

PRECIPITATION CONCENTRATIONS (10^{-3} g l^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL. RATIO PRECIP	
	STD (mm)	COLL (mm)											+VE/-VE	TYPE
31	23.8	25.7	6.30	0.5	0.266	0.4	0.16	0.330	0.10	0.25	0.14	0.035	1.35	1
TOTAL PRECIP	23.8	25.7												
NO. OBS.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A. MEAN	-	-	-	-	-	-	-	-	-	-	-	-	-	-
STD. DEV.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MINIMUM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MAXIMUM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P.W. MEAN	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PRECIP TYPE

- 1 - RAIN
2 - SNOW
3 - MIXED
4 - UNCERTAIN

- - MISSING DATA
BDL - BELOW DETECTION LIMIT

CREE LAKE

AUGUST 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2
1	bd1	bd1	bd1	bd1	bd1	0.4
2	bd1	0.07	bd1	bd1	bd1	bd1
3	bd1	bd1	bd1	bd1	bd1	bd1
4	bd1	bd1	bd1	bd1	bd1	bd1
5	0.63	0.08	bd1	bd1	bd1	3.5
6	0.42	0.07	bd1	bd1	bd1	bd1
7	bd1	0.04	bd1	bd1	bd1	bd1
8	bd1	0.05	bd1	bd1	bd1	bd1
9	bd1	0.07	bd1	bd1	bd1	bd1
10	0.39	0.25	bd1	bd1	bd1	0.5
11	1.80	0.30	bd1	bd1	0.34	2.5
12	0.33	0.05	bd1	bd1	bd1	1.0
13	0.52	0.06	bd1	bd1	bd1	0.9
14	bd1	bd1	bd1	bd1	bd1	0.6
15	bd1	bd1	bd1	bd1	bd1	0.5
16	0.78	0.15	bd1	bd1	bd1	bd1
17	0.44	0.15	bd1	bd1	bd1	bd1
18	0.79	0.13	bd1	bd1	bd1	2.8
19	0.33	0.06	bd1	bd1	bd1	0.4
20	bd1	bd1	bd1	bd1	bd1	bd1
21	bd1	0.04	bd1	bd1	bd1	bd1
22	bd1	bd1	bd1	bd1	bd1	bd1
23	bd1	bd1	bd1	bd1	bd1	bd1
24	bd1	bd1	bd1	bd1	bd1	bd1
25	bd1	bd1	bd1	bd1	bd1	bd1
26	bd1	bd1	bd1	bd1	bd1	bd1
27	bd1	bd1	bd1	bd1	bd1	bd1
28	bd1	bd1	bd1	bd1	bd1	bd1
29	0.47	bd1	bd1	bd1	bd1	0.7
30	0.30	bd1	bd1	bd1	bd1	bd1
31	0.32	bd1	bd1	bd1	bd1	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	-	-	-	-	-	-
A. MEAN	-	-	-	-	-	-
S.D.	-	-	-	-	-	-
MIN.	-	-	-	-	-	-
MAX.	-	-	-	-	-	-

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)											+VE/-VE		
1	3.2	1.3	7.40	2.0	1.551	1.6	-	1.035	-	-	-	0.078	-		1
2	3.4	2.6	6.20	0.9	0.709	0.9	0.28	0.325	0.09	0.70	0.37	0.056	1.25		1
3	9.2	8.5	6.50	0.5	0.089	0.4	0.70	BDL	0.05	0.22	0.07	0.010	-		1
4	3.4	2.5	5.80	0.4	0.089	0.4	0.10	0.084	0.02	0.26	0.17	0.046	1.17		1
6	39.8	42.6	5.90	0.5	0.222	0.1	0.22	0.040	0.03	0.12	0.04	0.005	1.10		1
13	6.2	5.5	5.80	0.9	0.222	0.1	0.25	0.041	0.04	0.06	0.03	0.014	0.79		1
17	8.2	7.8	5.80	0.6	0.576	0.2	0.11	0.157	0.04	0.17	0.02	0.052	0.88		1
19	0.2	BDL	-	-	-	-	-	-	-	-	-	-	-		1
22	0.4	BDL	-	3.8	-	0.5	-	-	-	-	-	-	-		1
25	BDL	0.7	6.10	0.6	-	0.4	0.39	-	0.06	-	-	-	-		2
26	1.1	0.9	5.90	0.6	-	0.3	0.06	-	BDL	-	-	-	-		4
27	5.9	5.4	6.00	BDL	0.266	0.2	0.20	0.093	0.03	0.32	0.14	0.007	-		1
28	1.3	2.2	5.60	0.9	-	0.2	0.07	-	0.01	-	-	-	-		1
29	0.6	BDL	-	2.3	-	1.4	-	-	-	-	-	-	-		1
31	1.0	0.7	5.70	0.6	-	0.6	-	-	-	-	-	-	-		1
TOTAL PRECIP															
NO. OBS.															
A. MEAN															
STD. DEV.															
MINIMUM															
MAXIMUM															
P.W. MEAN															

PRECIP TYPE

1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN

- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

CREE LAKE

SEPTEMBER 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Na ⁺	NH ₄ ⁺	SO ₂
1	bd1	0.05	bd1	bd1	bd1	bd1
2	bd1	0.05	bd1	bd1	bd1	bd1
3	bd1	bd1	bd1	bd1	bd1	bd1
4	bd1	bd1	bd1	bd1	bd1	bd1
5	0.27	bd1	bd1	bd1	bd1	bd1
6	0.94	-	-	-	-	bd1
7	bd1	0.06	bd1	bd1	bd1	bd1
8	0.35	0.06	bd1	bd1	bd1	0.8
9	0.75	0.05	bd1	bd1	bd1	bd1
10	0.36	bd1	bd1	bd1	bd1	0.4
11	bd1	bd1	bd1	bd1	bd1	bd1
12	bd1	bd1	bd1	bd1	bd1	0.4
13	bd1	bd1	bd1	bd1	bd1	bd1
14	0.42	0.14	bd1	bd1	bd1	bd1
15	bd1	0.06	bd1	bd1	bd1	bd1
16	bd1	0.18	bd1	bd1	bd1	bd1
17	0.37	0.09	bd1	bd1	bd1	bd1
18	bd1	bd1	bd1	bd1	bd1	0.4
19	bd1	0.05	bd1	bd1	bd1	0.4
20	bd1	0.13	bd1	bd1	bd1	bd1
21	0.34	0.28	bd1	bd1	bd1	0.4
22	bd1	0.04	bd1	bd1	bd1	bd1
23	bd1	bd1	bd1	bd1	bd1	bd1
24	0.76	0.26	bd1	bd1	bd1	1.0
25	bd1	bd1	bd1	bd1	bd1	bd1
26	bd1	bd1	bd1	bd1	bd1	0.5
27	bd1	bd1	bd1	bd1	bd1	bd1
28	0.28	bd1	bd1	bd1	bd1	0.5
29	0.26	0.04	bd1	bd1	bd1	bd1
30	0.68	0.06	bd1	bd1	bd1	bd1

bd1 - BELOW DETECTION LIMIT

NO. OBS.	-	29	-	-	-	-
A. MEAN	-	0.05	-	-	-	-
S.D.	-	0.08	-	-	-	-
MIN.	-	bd1	-	-	-	-
MAX.	-	0.28	-	-	-	-

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	SO ₄ ⁼	NO ₃ ⁻	Cl ⁻	Ca ⁺⁺	NH ₄ ⁺	Mg ⁺⁺	Na ⁺	K ⁺	TOT P	ION BAL.	PRECIP TYPE
	STD (mm)	COLL (mm)											RATIO +VE/-VE	
1	2.5	1.9	6.00	1.5	0.133	0.3	0.24	0.104	0.03	0.34	0.18	0.006	0.88	1
3	2.0	1.4	6.00	0.5	0.089	0.3	0.21	0.102	0.02	-	-	-	-	1
6	0.4	BDL	-	1.5	-	1.7	-	-	-	-	-	-	-	1
8	0.2	BDL	-	-	-	-	-	-	-	-	-	-	-	1
9	6.0	5.5	4.70	1.8	0.665	0.2	0.34	0.370	0.08	0.37	0.25	0.044	1.62	1
10	3.4	2.9	5.80	0.9	0.089	0.4	0.10	0.116	0.02	BDL	BDL	0.011	-	1
11	1.6	0.7	6.30	0.4	-	0.7	-	-	-	-	-	-	-	4
14	5.6	5.6	5.20	0.7	0.310	0.2	0.16	0.114	0.03	0.17	0.04	0.021	1.22	4
15	1.2	0.8	6.10	0.6	-	0.3	0.35	-	0.04	-	-	-	-	1
25 (2)	2.6	1.6	5.40	3.5	1.595	0.2	0.78	0.844	0.13	0.60	0.18	0.063	-	1
TOTAL PRECIP	22.9	18.8												
NO. OBS.	9	9	7	8	5	8	6	5	6	-	-	-	-	
A. MEAN	2.5	2.1	5.35	1.0	0.257	0.5	0.23	0.161	0.04	-	-	-	-	
STD. DEV.	2.1	2.2	5.15	0.5	0.246	0.5	0.10	0.117	0.02	-	-	-	-	
MINIMUM	0.2	BDL	4.70	0.4	0.089	0.2	0.10	0.102	0.02	-	-	-	-	
MAXIMUM	6.0	5.6	6.30	1.8	0.665	1.7	0.35	0.370	0.08	-	-	-	-	
P.W. MEAN			5.13	1.1	0.335	0.3	0.23	0.191	0.04	-	-	-	-	

PRECIP TYPE

1 - RAIN

- - MISSING DATA

2 - SNOW

BDL - BELOW DETECTION LIMIT

3 - MIXED

4 - UNCERTAIN

DAY()-DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

CREE LAKE

OCTOBER 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2
1	0.59	0.14	bd1	bd1	bd1	0.4
2	bd1	bd1	bd1	bd1	bd1	bd1
3	bd1	bd1	bd1	bd1	bd1	bd1
4	bd1	bd1	bd1	bd1	bd1	bd1
5	0.95	0.17	bd1	bd1	0.26	0.5
6	0.84	0.09	bd1	bd1	0.24	bd1
7	0.59	0.09	bd1	bd1	bd1	bd1
8	0.93	0.14	bd1	bd1	0.25	bd1
9	1.40	0.15	bd1	bd1	0.23	2.3
10	0.36	0.17	bd1	bd1	bd1	0.5
11	0.34	0.15	bd1	bd1	bd1	bd1
12	0.37	0.06	bd1	bd1	bd1	1.1
13	0.38	0.07	bd1	bd1	bd1	1.1
14	0.25	bd1	bd1	bd1	bd1	bd1
15	bd1	bd1	bd1	bd1	bd1	bd1
16	bd1	bd1	bd1	bd1	bd1	bd1
17	0.31	bd1	bd1	bd1	bd1	bd1
18	0.65	bd1	bd1	bd1	bd1	1.4
19	0.33	bd1	bd1	bd1	bd1	0.7
20	0.60	0.23	bd1	bd1	0.23	2.2
21	1.01	0.23	bd1	bd1	bd1	1.3
22	1.20	0.62	bd1	bd1	0.45	0.9
23	0.55	0.18	bd1	bd1	bd1	4.1
24	0.67	0.47	bd1	bd1	bd1	1.9
25	0.52	0.47	bd1	bd1	bd1	1.1
26	0.59	0.61	bd1	bd1	bd1	0.9
27	0.91	0.21	0.36	0.21	bd1	1.8
28	0.32	0.04	bd1	bd1	bd1	0.7
29	0.57	0.06	bd1	bd1	bd1	0.5
30	0.60	0.04	bd1	bd1	bd1	1.5
31	bd1	bd1	bd1	bd1	bd1	1.5

bd1 - BELOW DETECTION LIMIT

NO. OBS.	31	31	-	-	-	31
A. MEAN	0.51	0.14	-	-	-	0.9
S.D.	0.37	0.18	-	-	-	0.9
MIN.	bd1	bd1	-	-	-	bd1
MAX.	1.40	0.62	-	-	-	4.1

PRECIPITATION CONCENTRATIONS (10^{-3} gl^{-1})

DAY	AMOUNT		PH	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	ION BAL. RATIO		PRECIP TYPE
	STD (mm)	COLL (mm)											+VE/-VE		
7	0.2	BDL	-	-	-	-	-	-	-	-	-	-	-	-	1
11	0.3	BDL	-	-	-	-	-	-	-	-	-	-	-	-	1
12 (3)	0.4	BDL	-	2.8	-	1.2	-	-	-	-	-	-	-	-	1
15	1.4	0.8	5.40	2.1	-	0.1	0.83	-	0.03	-	-	-	-	-	4
16	6.6	4.1	5.30	0.6	0.089	0.1	0.19	0.067	0.02	BDL	0.04	0.022	-	-	2
17	3.6	2.8	5.70	0.5	BDL	0.2	0.16	0.030	0.02	0.13	0.09	0.019	-	-	2
22	0.2	BDL	-	-	-	-	-	-	-	-	-	-	-	-	1
27	0.3	0.5	-	3.2	-	0.8	-	-	-	-	-	-	-	-	1
28	0.2	BDL	-	-	-	-	-	-	-	-	-	-	-	-	2
29	0.6	0.7	5.20	0.8	-	0.2	-	-	-	-	-	-	-	-	2
31 (2)	0.2	BDL	-	-	-	-	-	-	-	-	-	-	-	-	4
TOTAL PRECIP	13.4	8.9													
NO. OBS.	9	9	4	5	-	5	3	-	3	-	-	-	-	-	
A. MEAN	1.5	1.0	5.36	1.4	-	0.3	0.39	-	0.02	-	-	-	-	-	
STD. DEV.	2.2	1.5	5.74	1.2	-	0.3	0.38	-	0.01	-	-	-	-	-	
MINIMUM	0.2	BDL	5.20	0.5	-	0.1	0.16	-	0.02	-	-	-	-	-	
MAXIMUM	6.6	4.1	5.70	3.2	-	0.8	0.83	-	0.03	-	-	-	-	-	
P.W. MEAN			5.39	0.8	-	0.1	0.26	-	0.02	-	-	-	-	-	

PRECIP TYPE

- 1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN
- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

DAY () - DENOTES A MULTIPLE DAY SAMPLE OF DURATION SHOWN IN BRACKETS AND IS NOT INCLUDED IN STATISTICS

CREE LAKE

NOVEMBER 1982

AIR CONCENTRATIONS (10^{-6} gm^{-3})

DAY	PARTICULATE					GAS
	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Na^{+}	NH_4^{+}	SO_2
1	0.40	bd1	bd1	bd1	bd1	bd1
2	0.60	0.04	bd1	bd1	bd1	bd1
3	0.56	0.06	bd1	bd1	bd1	bd1
4	0.51	0.17	bd1	bd1	bd1	bd1
5	0.92	0.27	bd1	bd1	0.31	0.8
6	1.77	0.13	bd1	bd1	0.27	1.5
7	0.64	0.11	bd1	bd1	bd1	bd1
8	1.54	0.30	bd1	bd1	0.54	1.3
9	2.76	1.21	bd1	bd1	1.16	7.0
10	0.93	0.22	bd1	bd1	0.29	1.3
11	0.63	0.07	bd1	bd1	bd1	3.0
12	0.86	0.06	bd1	bd1	bd1	1.3
13	0.42	0.06	bd1	bd1	bd1	1.2
14	0.86	0.21	bd1	bd1	0.25	2.0
15	0.96	0.05	bd1	bd1	bd1	2.2
16	0.87	bd1	bd1	bd1	bd1	bd1
17	1.58	0.07	bd1	bd1	0.27	7.1
18	0.80	0.04	bd1	bd1	bd1	bd1
19	0.79	0.07	bd1	bd1	bd1	0.5
20	0.82	0.10	bd1	0.16	bd1	0.6
21	0.91	0.15	bd1	0.11	bd1	2.7
22	0.69	0.08	bd1	bd1	bd1	1.7
23	0.91	0.10	bd1	bd1	bd1	4.4
24	0.82	0.08	bd1	bd1	bd1	0.4
25	0.75	0.06	bd1	bd1	0.21	2.9
26	0.82	0.21	bd1	bd1	bd1	5.0
27	1.33	1.46	bd1	bd1	0.64	1.9
28	4.38	1.89	bd1	bd1	1.13	2.2
29	4.05	0.59	bd1	bd1	0.81	17.5
30	4.04	0.39	bd1	bd1	0.74	9.4

bd1 - BELOW DETECTION LIMIT

NO. OBS.	30	30	-	-	-	30
A. MEAN	1.26	0.28	-	-	-	2.6
S.D.	1.09	0.45	-	-	-	3.7
MIN.	0.40	bd1	-	-	-	bd1
MAX.	4.38	1.89	-	-	-	17.5

PRECIPITATION CONCENTRATIONS (10^{-3} g l^{-1})

DAY	AMOUNT		PH	$\text{SO}_4^{=}$	NO_3^{-}	Cl^{-}	Ca^{++}	NH_4^{+}	Mg^{++}	Na^{+}	K^{+}	TOT P	ION BAL.	
	STD (mm)	COLL (mm)											RATIO +VE/-VE	PRECIP TYPE
4	1.8	0.8	6.00	2.2	-	0.8	-	-	-	-	-	-	-	2
5	5.0	1.7	5.90	0.9	0.359	0.6	0.53	0.133	0.05	-	-	0.022	-	2
7	1.0	0.8	-	1.0	0.580	1.1	-	0.067	-	-	-	-	-	2
9	3.2	2.8	6.20	0.2	0.447	0.2	0.18	0.043	0.03	0.19	BDL	0.014	-	2
10	6.0	3.1	6.30	0.4	0.270	0.1	0.26	0.224	0.03	0.08	0.04	0.058	1.27	2
13	10.0	5.2	-	0.9	0.315	0.4	-	0.186	-	-	-	-	-	2
14	6.2	9.1	5.90	0.4	0.718	0.2	0.31	0.045	0.03	0.23	0.07	-	1.11	2
15	BDL	BDL	-	3.3	-	3.0	-	-	-	-	-	-	-	2
17	2.2	1.2	5.80	0.9	0.443	0.4	0.51	BDL	0.06	-	-	-	-	2
19	14.2	7.1	6.00	0.4	0.128	0.2	0.24	BDL	0.03	0.18	0.05	0.003	-	2
20	0.8	0.7	6.30	1.6	-	0.8	-	-	-	-	-	-	-	2
28	1.5	0.5	-	-	-	-	-	-	-	-	-	-	-	2
29	0.4	BDL	-	-	-	-	-	-	-	-	-	-	-	2
TOTAL PRECIP	52.3	33.0												
NO. OBS.	13	13	-	11	8	11	-	8	-	-	-	-	-	
A. MEAN	4.0	2.5	-	1.1	0.407	0.7	-	0.087	-	-	-	-	-	
STD. DEV.	4.2	2.9	-	0.9	0.184	0.8	-	0.084	-	-	-	-	-	
MINIMUM	BDL	BDL	-	0.2	0.128	0.1	-	BDL	-	-	-	-	-	
MAXIMUM	14.2	9.1	-	3.3	0.718	3.0	-	0.224	-	-	-	-	-	
P.W. MEAN			-	0.7	0.331	0.3	-	0.091	-	-	-	-	-	

PRECIP TYPE

1 - RAIN
 2 - SNOW
 3 - MIXED
 4 - UNCERTAIN

- - MISSING DATA
 BDL - BELOW DETECTION LIMIT

CREE LAKE (DECEMBER 1982)
-3 -1
PRECIPITATION CONCENTRATIONS (10⁻³ gl⁻¹)

DAY	AMOUNT		PH	SO4=	NO3-	Cl-	Ca++	NH4+	Mg++	Na+	K+	TOT P	ION BAL.	
	STD (mm)	COLL (mm)											RATIO +VE/-VE	PRECIP TYPE
1	2.0	BDL	-	-	-	-	-	-	-	-	-	-	-	2
3	0.2	BDL	-	-	-	-	-	-	-	-	-	-	-	2
4	3.8	2.5	6.30	2.2	0.793	0.6	0.91	0.306	0.07	0.56	0.27	-	1.16	2
5	0.2	BDL	-	-	-	-	-	-	-	-	-	-	-	2
6	0.8	0.5	6.30	1.5	-	0.5	-	-	-	-	-	-	-	2
8	4.2	1.9	6.10	1.3	0.611	0.4	0.64	BDL	0.06	0.44	0.22	-	-	2
12	4.0	2.5	6.30	0.7	0.257	0.3	0.33	0.049	0.04	0.46	0.11	-	1.21	2
13	0.8	0.6	4.50	2.6	-	0.3	-	-	-	-	-	-	-	2
14	0.2	BDL	-	-	-	-	-	-	-	-	-	-	-	2
16	4.4	3.9	5.10	0.6	0.921	0.3	0.24	0.017	0.03	0.24	0.08	0.007	0.98	2
17	0.4	BDL	-	-	-	-	-	-	-	-	-	-	-	2
18	0.6	BDL	-	1.5	-	0.6	-	-	-	-	-	-	-	2
19	2.4	2.5	5.50	0.8	0.470	0.2	0.19	0.103	0.02	0.21	0.15	-	1.02	2
23	0.2	BDL	-	-	-	-	-	-	-	-	-	-	-	2
24	0.2	BDL	-	-	-	-	-	-	-	-	-	-	-	2
25	6.8	3.9	5.50	0.5	0.846	0.2	0.37	0.141	0.05	0.16	0.10	0.005	1.38	2
26	2.6	1.7	5.20	0.4	0.758	0.1	0.30	0.099	0.03	0.10	0.07	-	1.40	2
30	1.8	1.5	-	0.6	0.310	0.4	0.27	0.156	0.03	0.29	0.15	-	-	2
31	0.4	0.4	-	2.1	-	1.1	-	-	-	-	-	-	-	2
TOTAL PRECIP														
NO. OBS.														
A. MEAN														
STD. DEV.														
MINIMUM														
MAXIMUM														
P.W. MEAN														

PRECIP TYPE

1 - RAIN
2 - SNOW
3 - MIXED
4 - UNCERTAIN

- - MISSING DATA
BDL - BELOW DETECTION LIMIT

*Three Dark Figures
Making the Weather
In Folk, in Myth, in Legend,
A threefold test.
Shiva, Vishnu, Brahmin.
Father, Son, Holy Ghost.
Body, Mind, Spirit.
Triune, Triumvirate, Tribunal.
One is Isolate
Two is divisive
Three is Peace.
Three is Torment.
Three is Potent.
Power, Power, Power.
Air, Fire, Water.
Three Dark Figures,
Making the Weather.*

Ron Baird, Sculptor